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September 11, 2015

Ms. Rachelle Thompson
United States Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, California 94105

RE: 2014-2015 Annual Report for United Heckathorn Superfund Site
Upland Capping System
Richmond, California

Dear Ms. Thompson:

Enclosed please find the 2014-2015 Annual Report for the United Heckathorn Superfund Site Upland Capping System presenting inspection, monitoring, and maintenance activities performed on the upland capping and drainage system at the United Heckathorn Superfund Site located at 402 Wright Avenue, Richmond, California. This report was prepared in accordance with the *Revised Draft Operations and Maintenance Plan, Upland Capping System Former United Heckathorn Site*.

Please feel free to contact me if you have any questions or concerns with the attached report.

Sincerely,



Gary Levin
Chief Executive Officer
(510) 307-4091

Attachment: 2014-2015 Annual Report for United Heckathorn Superfund Site Upland Capping System



Weiss Associates

Environmental Science, Engineering, and Management

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**2014-2015 ANNUAL REPORT
FOR
UNITED HECKATHORN SUPERFUND SITE
UPLAND CAPPING SYSTEM
RICHMOND, CALIFORNIA**

prepared for

Levin Richmond Terminal Corporation
402 Wright Avenue
Richmond, California 94804

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prepared for:

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Richmond, California 94804

prepared by:

Weiss Associates
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Weiss Job No. 426-2026.01 Task 2

Weiss Associates' work for the Levin Richmond Terminal Corporation was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate, are based on what can be reasonably understood as a result of this project, and satisfy the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications or professional opinions were prepared solely for the use of the Levin Richmond Terminal Corporation in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of the contents herein.



Scott Bourne, PE
Principal

September 11, 2015

Date

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ACRONYMS

BMP	best management practices
Calscience	Eurofins CalScience Environmental Laboratories
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethene
DDT	dichlorodiphenyltrichloroethane
Heckathorn site or Site	United Heckathorn Superfund Site
H&R	H&R Plumbing and Drain Cleaning, Inc.
IGP	Storm Water Industrial General Permit
LRT	Levin Richmond Terminal
LRTC	Levin Richmond Terminal Corporation
msl	mean sea level
NPDES	National Pollutant Discharge Elimination System
O&M	operations and maintenance
O&M Plan	<i>Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site</i>
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
Subtronic	Subtronic Corporation
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
Weiss	Weiss Associates

1. INTRODUCTION

This 2014-2015 Annual Report was prepared to describe the inspection, monitoring, and maintenance activities performed on the upland capping and storm water drainage systems at the United Heckathorn Superfund Site (Heckathorn site or Site) located in the Richmond Harbor near the intersection of the Santa Fe Channel and Inner Harbor Channel (Figure 1). The Site is part of the Levin Richmond Terminal (LRT) and this report has been prepared by Weiss Associates (Weiss) under contract with the Levin Richmond Terminal Corporation (LRTC).

1.1 Background

From 1947 through 1966, the Heckathorn site was used for processing, packaging, and shipping of pesticides including aldrin, dieldrin, dichlorodiphenyltrichloroethane (DDT), and endrin. In 1994, the United States Environmental Protection Agency (USEPA) adopted a Record of Decision (ROD) for the Site which limits use of the property and required LRTC to design, construct, and maintain a concrete cap to prevent erosion of upland soils (USEPA, 1994b).

In 1996, LRTC entered into a Consent Decree with the USEPA, which outlined LRTC's responsibilities for long-term management of the upland capping system located on the northern half of the Main Terminal at the LRT (United States District Court, 1996). LRTC performs operations and maintenance (O&M) activities in accordance with the *Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site* (O&M Plan; PES, 1999).

The *Third Five-Year Review Report for United Heckathorn Superfund Site, Richmond, California* (Third Five-Year Review; USEPA, 2011) included recommendations for additional best management practices (BMPs) to be included in the O&M Plan, including annual monitoring for cap cracking and settlement, establishing monitoring points on the cap for settlement monitoring, collecting sediment samples from the storm drain interceptors for pesticide analysis, and periodic video inspections of the underground drainage systems.

1.2 Upland Cap Inspections

In order to ensure long-term protection of human health and the environment, the remedial action goal established by the USEPA for upland and embankment soils is the prevention of erosion and transport into the Lauritzen Channel (USEPA, 1994a).

The objective of the cap inspection and storm water monitoring programs is to identify any potential release of pesticide-impacted soil by examining the integrity of the cap system through inspection and storm water monitoring (USEPA, 2011.)

1.3 Contents of this Report

The following sections describe activities to maintain the upland cap, including:

- Capping system activities;
- Storm water system activities;
- Annual cap inspection; and
- Proposed site work for 2015-2016.

A conclusion with Weiss's opinion as to the overall condition and effectiveness of the cap in meeting the upland cap remediation objective is also included.

2. SITE DESCRIPTION

The LRT is located at 402 Wright Avenue in Richmond, California (Figure 1). The Heckathorn site includes the northern five acres of the Main Terminal at the LRT, known as the Upland Area (Figure 2).

2.1 Upland Area Description and Current Use

The Upland Area is bounded by Cutting Boulevard and railroad tracks to the north; South Fourth Street, Wright Avenue, and Sims Metal Management to the east; the Santa Fe Channel to the south; and the Lauritzen Channel, Manson Construction Company, and an unoccupied industrial property to the west. The majority of the Upland Area is relatively flat with surface elevations of approximately 9 feet above mean sea level (msl). The portion of the Upland Area north of the Lauritzen Channel was raised to approximately 15 feet above msl.

The Upland Area is used primarily for storage of dry bulk product and railroad operations. Photographs taken during the site inspection are included in Appendix A.

2.2 Nearby Water Bodies

The storm water system in the Upland Area discharges directly to the Lauritzen Channel (Figure 2). The Lauritzen Channel is connected to the San Francisco Bay via the Santa Fe Channel and Richmond Inner Harbor.

2.3 Upland Area Cap

Construction of the concrete cap at the Upland Area began in July 1998 and was completed in July 1999. Installation of the cap consisted of: (1) site grading to promote surface runoff to collection points; (2) installation of a drainage system to collect surface runoff, including BMPs for storm water pollution prevention; and (3) construction of a reinforced concrete cap in the majority of the 5-acre area and construction of a geotextile fabric and gravel cap in the railroad track area. The concrete and gravel/geotextile cap areas were designed to protect against erosion of contaminated soils and subsequent flow into the channel associated with surface water runoff (USEPA, 2011).

2.4 Storm Water Collection System

The Upland Area storm water collection system (Figure 3) was installed in 1998 and is part of the larger storm water collection system at the LRT. The facility is paved with asphalt and concrete and is graded to direct surface water runoff via sheet flow or shallow swales to drop inlets.

The drop inlets drain to below-grade interceptors via underground pipe. Five storm water interceptors, SW-3 through SW-7, are located within the Upland Area storm water drainage system and receive storm water runoff. The wooden pier deck that extends over open water is not connected to the storm water drainage system.

Storm water interceptors SW-3 through SW-7 were constructed with compartments and steel baffles to allow the settling of sediments and separation of oil/grease and floatables, thereby decreasing the potential for outflow of these pollutants into the Lauritzen Channel. Interceptors SW-3 through SW-7 were constructed with a capacity to provide a five-minute retention time during a 10-year, 24-hour storm event (PES, 1999). Interceptors SW-3 through SW-7 are equipped with normally closed gate valves, which can be opened during heavy rains to enable discharge to the Lauritzen Channel.

Between 2009 and 2012, interceptor SW-3 was modified through the installation of two new pumps, valves, and piping to enable discharge to a 20,000-gallon nominal capacity rectangular tank for sediment settling. Storm water collected in the tank was discharged or reused on-site for dust suppression.

In 2014, pumps and piping were installed to convey storm water collected in the SW-4, SW-6, and SW-7 interceptors to interceptor SW-5. Pumps, piping, and a 20,000-gallon nominal capacity rectangular tank were then installed to facilitate additional sediment removal for the combined SW-4/-5/-6/-7 interceptors, prior to discharge or reuse on-site for dust suppression.

In 2015, piping was installed from interceptor SW-3 to the 20,000 gallon tank located near interceptor SW-5, and the 20,000 gallon tank near interceptor SW-3 was relocated to the SW-5 area. A storm water treatment system will be installed at the SW-5 discharge location in 2015 to prevent or reduce the discharge of pollutants in storm water from industrial activities. The system will treat storm water pumped from interceptors SW-3, SW-4, SW-5, SW-6, and SW-7 using flocculation, settling, and filtration methods. Treated storm water will be discharged to the Lauritzen Channel via the SW-5 outfall.

3. CAPPING SYSTEM ACTIVITIES

This section describes repair and routine O&M of the upland capping system performed during the 2014-2015 reporting year. No maintenance activities involving the disturbance of or excavation into underlying, impacted soil were conducted.

3.1 Repair of Concrete Cap

No maintenance or major repair involving replacement of portions of the concrete cap was conducted during the 2014-2015 reporting year.

3.2 Repair of Gravel Cover

Additional rock was placed on top of the existing gravel cover in the vicinity of interceptor SW-5 in July 2014 to ensure proper coverage.

No other major repair involving replacement of portions of the gravel cover was conducted during the 2014-2015 reporting year.

3.3 Erosion Control

No major erosion control work was performed during the 2014-2015 reporting year.

4. STORM WATER SYSTEM ACTIVITIES

This section describes the storm water collection system activities performed during the 2014-2015 reporting period. Activities included sampling of storm water, cleaning and inspection of all Heckathorn storm drain piping, and repairs of damaged piping associated with interceptors SW-3 and SW-5.

4.1 Storm Water Sampling

The O&M Plan (PES, 1999) requires storm water sampling to assess the effectiveness of the upland capping system. During the 2014-2015 reporting year, storm water discharges associated with industrial activities at the LRT were subject to the State Water Resources Control Board (SWRCB) Water Quality Order 97-03-DWQ for National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (*Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities excluding Construction Activities*), also referred to as the Storm Water Industrial General Permit (1997 IGP; SWRCB, 1997). The O&M Plan expands the storm water monitoring requirements to include sampling for pesticides by USEPA Method 8081A in storm water discharges originating from the Upland Area (i.e., interceptors SW-3 through SW-7). Specifically, the O&M Plan requires samples to be collected at the outlet of each of the five interceptors. However, due to upgrades to storm water treatment at LRT, storm water collected at interceptors SW-4 through SW-7 was rerouted to a single sedimentation tank beginning in 2014 (as detailed in Section 2.4). Samples during the 2014-2015 reporting year were therefore collected from the SW-3 discharge and combined SW-4 through SW-7 discharges (SW-4/-5/-6/-7).

Storm water monitoring requirements for the 2014-2015 reporting year are documented in LRTC's *Storm Water Pollution Prevention Plan* (SWPPP; Weiss, 2014b), which details monitoring procedures to comply with the 1997 IGP and the O&M Plan. Sample collection during the 2014-2015 reporting year was performed as follows:

- Sampling during four storm events producing discharges during the wet season (October through May);
- Collecting samples from a storm preceded by at least three days of dry weather; and
- Collecting samples during normal operating hours.

As of July 1, 2015, storm water discharges at LRT are regulated under the SWRCB Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001 (2015 IGP), which is the successor permit to the 1997 IGP. Sample collection beginning in the 2015-2016 reporting year will be performed in conjunction with the 2015 IGP, revised LRT SWPPP (Weiss, 2015), and the O&M Plan.

4.1.1 Sample Results

During the 2014-2015 reporting year, storm water from the SW-3 and the combined SW-4/-5/-6/-7 discharge locations was sampled during three storm events, on November 20, December 2, and December 11, 2014. No discharge was produced at either location during the fourth storm event on February 6, 2015. Tables 1 and 2 provide the laboratory analytical results for pesticides and general parameters/metals, respectively. This Annual Report focuses on the evaluation of analytical results for pesticides.

Storm water samples were submitted to Eurofins CalScience Environmental Laboratories (Calscience) in Concord, California. Original laboratory reports, including applicable chain-of-custody forms, are included as part of the *2014-2015 Annual Storm Water Monitoring Report*¹ provided in Appendix B.

Pesticides were detected in the November 20, 2014 storm water samples as follows:

- DDT was detected at a concentration of 0.022 micrograms per liter (µg/L) in the SW-4 through SW-7 discharge;
- Endosulfan I was detected at a concentration of 0.042 µg/L in the SW-4 through SW-7 discharge;
- Endrin was detected at a concentration of 0.012 µg/L in the SW-4 through SW-7 discharge; and
- Heptachlor was detected at a concentration of 0.016 µg/L in the SW-3 discharge.

Pesticides were detected in the December 2, 2014 storm water samples as follows:

- DDT was detected at concentrations of 0.019 and 0.0035 µg/L in the SW-3 and SW-4 through SW-7 discharges, respectively.
- Dichlorodiphenyldichloroethene (DDE) was detected at a concentration of 0.014 µg/L in the SW-3 discharge.
- Dichlorodiphenyldichloroethane (DDD) was detected at a concentration of 0.0028 µg/L in the SW-3 discharge.

Pesticides were detected in the December 11, 2014 storm water samples as follows:

- DDT was detected at concentrations of 0.039 and 0.0049 µg/L in the SW-3 and SW-4 through SW-7 discharges, respectively.
- DDD was detected at concentrations of 0.0023 and 0.0033 µg/L in the SW-3 and SW-4 through SW-7 discharges, respectively.
- Endosulfan I was detected at a concentration of 0.030 µg/L in the SW-3 discharge.

¹ Note that laboratory analytical reports include results from other sampling locations (i.e., TS1-E, SW-11, and SW-12) collected as part of the LRT Storm Water Monitoring Program for 2014-2015.

4.1.2 *Quality Assurance/Quality Control*

The O&M Plan (PES, 1999) requires at least one duplicate sample be collected per storm sampling event. During the 2014-2015 reporting year, duplicate samples were submitted from the November 20 and December 2, 2014 sampling events. During the December 11, 2014 sampling event a duplicate sample was submitted for a discharge location not associated with the Upland Cap area at LRT. No data quality issues were reported through the data validation process.

4.1.3 *Assessment of Results*

The pesticides detected in storm water samples collected during the 2014-2015 storm water season were consistent with historical concentrations. Appendix C provides concentration trend charts for DDT² and dieldrin from 2011 to present for SW-3, SW-4, SW-5, SW-6, SW-7, and the combined SW-4/-5/-6/-7 storm water discharges. DDT and dieldrin were selected for plotting because they have final remediation levels established in the ROD (USEPA, 1994b). The charts provide both detected concentrations and non-detect results.³ Prior to the 2013-2014 storm water season, the laboratory method detection limits for DDT and dieldrin were above the remediation goals and therefore the current trend charts provide limited information. Lower detection limits were instituted beginning in February 2014.

Annual storm water monitoring will continue in the 2015-2016 reporting year in accordance with the SWPPP and O&M Plan. Trend charts will be updated annually with new data.

4.2 **Storm Water Collection System Cleaning and Inspection**

The USEPA recommended in the Third Five-Year Review (USEPA, 2011) that LRTC perform periodic underground video inspections to verify the integrity of the underground storm water collection and discharge structures in the Upland cap area. LRTC cleaned and inspected the collection systems associated with interceptors SW-4 and SW-5 during the 2013-2014 reporting year as detailed in the 2013-2014 Annual Report (Weiss, 2014a). Through these inspections, a 2-foot long section of pipe leading to the SW-5 interceptor, between 9 and 11 feet west of catch basin 5D1-14A, was found to be deformed beneath the rail line and had large cracks along the bottom of the pipe.

On September 3 and 4, 2014, the remaining underground collection systems associated with interceptors SW-3, SW-6, and SW-7 were cleaned using a combination hydro-jet/vacuum truck and inspected with video equipment. LRTC contracted Subtronic Corporation (Subtronic) of Martinez, California to clean and perform video inspections on the storm water collection systems in September 2014. Material removed from the pipes included bulk product, sediments, and other debris. Wash water generated was decanted from the vacuum truck and reused on-site for dust suppression. Solids were tested and disposed off-site (see Section 4.2.4). Subtronic then inspected the storm drain lines; details of the inspection are provided below.

² Note that plotted DDT values are for the sum of the 4,4'- and 2,4'- isomers of DDT, DDD, and DDE.

³ Denoted by "<n", where n is the sum of the DDT, DDD, and DDE detection limits, if available, or reporting limit otherwise.

4.2.1 SW-3 Inspection

Subtronic accessed and inspected approximately 850 feet of piping in the SW-3 area on September 3 and 4, 2014. A rupture was discovered in the section of pipe spanning between drain inlets 3DI-6 and 3DI-7 (Figure 3). The rupture was located approximately 36 feet to the south of drain inlet 3DI-7 and consisted of a cross-sectional break along the top half of the pipe. Additionally, a sag in the pipe was observed approximately 10 feet to the north of drain inlet 3DI-5, between inlets 3DI-5 and 3DI-6, which did not appear to affect pipe integrity. The remaining pipes were observed to be clean and in good condition, with no cracking or deformation noted and all seams intact. No groundwater infiltration or inflow was observed.

4.2.2 SW-6 Inspection

Subtronic accessed and inspected approximately 200 feet of piping in the SW-6 area on September 4 and 5, 2014. The section of pipe between drain inlets 6DI-15 and 6DI-15A was observed to have a sag, approximately 65 feet from inlet 6DI-15 (Figure 3), which did not appear to affect pipe integrity. All other piping inspected in the SW-6 area was observed to be clean and in good condition, with no cracking or deformation noted and all seams intact. No groundwater infiltration or inflow was observed.

4.2.3 SW-7 Inspection

Subtronic accessed and inspected approximately 150 feet of piping leading to the SW-7 interceptor on September 3, 2014. All pipes were observed to be clean and in good condition, with no cracking or deformation noted and all seams intact. No groundwater infiltration or inflow was observed.

4.2.4 Waste Disposal

The cleaning and inspection activities in the Upland Cap area generated wash water and solid debris. The wash water was evaporated or reused on-site for dust suppression. Sediment collected from interceptors SW-4 and SW-5 was sampled for waste characterization on June 25, 2014; sediment from SW-3, SW-6, and SW-7 was sampled September 5, 2014. A summary of analytical results is presented in Table 3. Sample results showed that some sediment exceeded California's hazardous waste threshold for lead.⁴

Two 55-gallon drums containing sediment were shipped as non-Resource Conservation and Recovery Act (non-RCRA) hazardous waste by NRC Environmental Services to the Crosby & Overton facility in Long Beach, California (UESPA hazardous waste identification number CAD 028409019). The Crosby & Overton facility is authorized to receive Comprehensive Environmental Response, Compensation, and Liability Act waste under the USEPA's Offsite Rule.⁵

⁴ California Code of Regulations, Title 22, Division 4.5, Chapter 11, Section 66261.24, Characteristics of Toxicity.

⁵ Email correspondence between Kandice Bellamy of USEPA and Scott Bourne on October 23, 2014. Offsite Rule is from Code of Federal Regulation, Title 40, Section 300.440.

4.3 Storm Water Collection System Repairs

Based on the results of storm drain pipe inspections, LRTC subcontracted H&R Plumbing and Drain Cleaning, Inc. (H&R) of El Sobrante, California to repair the damaged sections of pipes leading to the SW-3 and SW-5 interceptors (Figure 3) on December 9, 2014. H&R performed the repairs using a trenchless method that utilized cure-in-place pipe patch manufactured by Source One Environmental. Pipe patch sleeves were wrapped around a packer, inserted into drain inlets, and pulled through the storm drain piping to the damaged area. The packer was expanded and the pipe patch was pushed against the piping, where it cured to create the patch.

5. ANNUAL SITE INSPECTION

This section describes the findings from the upland capping system inspection conducted during the 2014-2015 reporting year. Mr. Scott Bourne, PE and Mr. Brian Bandy of Weiss performed an annual inspection of the upland capping system on June 15, 2015, in accordance with the O&M Plan (PES, 1999). The inspection included visual observations of the concrete cap, gravel cover, and drainage system throughout the extent of the Upland Area. The findings of the inspection of the Upland Area storm water drainage system are included on the Upland Capping System Inspection Form (Appendix D); photographs taken during the inspection are included in Appendix A.

5.1 Concrete Cap Inspection

Visual observations of the concrete cap concentrated on cracks, joints, high-loading areas, and penetrations looking for signs of deterioration and exposure of the underlying subgrade. Any such defect was considered for its potential to compromise the ability of the cap to prevent wind and water erosion and lead to migration of pesticide-impacted sediments into the adjacent Lauritzen Channel, or exposure to Site workers. Particular emphasis was placed on re-examining areas with cracks and potential settlement as identified in the Third Five-Year Review (USEPA, 2011) and the 2013-2014 Annual Report (Weiss, 2014a).

- **SW-3 Area** – Minor surficial cracks were observed within and to the west of the bulk product storage area, with heavier cracks and seams located to the northwest of interceptor SW-3 at the southern end of the upland capping system (Appendix A; Photos 1, 3, 4, and 5). Cracks and concrete seams identified as high priority in the previous inspections were observed to have been patched (Appendix A; Photo 2).
- **SW-4 Area** – Areas of minor surficial cracks were observed along the rail line south of interceptor SW-4 (Appendix A; Photo 6). Sealant was noted extending from the southeast corner of interceptor SW-4 toward the east (Appendix A; Photo 7). Minor surficial cracks were observed north of interceptor SW-4 (Appendix A; Photo 8).
- **SW-5 Area** – Minor cracks were noted north and south of interceptor SW-5 (Appendix A; Photos 9 and 11). Light gravel cover was observed to the north of interceptor SW-5 (Appendix A; Photo 10).
- **SW-6 Area** – Minor cracks were noted north and northeast of interceptor SW-6 (Appendix A; Photos 12 and 14). Seams and surficial cracks were observed in the eastern swale of the Main Terminal (Appendix A; Photos 15 and 16). Small areas of concrete deterioration were observed in the southern portion of the eastern swale of the Main Terminal (Appendix A; Photos 17 and 18).
- **SW-7 Area** – Minor cracks were observed to the northeast of interceptor SW-7 (Appendix A; Photo 13).

Figure 4 shows the locations of photographs taken to document cracks and gaps shown in Appendix A and described above. No evidence of differential settling or vertical displacement was observed.

No evidence of cracks, gaps, significant cap deterioration, or other material breach with apparent potential for exposure of the underlying subgrade was observed during the inspection. Weiss recommends that LRTC continue to monitor minor cracks noted during the inspection. No repairs are recommended at this time.

5.2 Gravel Cover Inspection

Visual observations of the gravel cover concentrated on identifying areas around the rail and shoreline where gravel cover was thin. A geotextile membrane underlies the gravel cover, but was not visually observed in any of the areas inspected. Below is a summary of observations from the concrete cap inspection.

- **SW-4 Area** – The gravel cover in this area was observed to be thin in one area; the underlying geotextile fabric was not exposed in this area (Appendix A; Photo 6).
- **SW-5 Area** – The gravel cover was observed to be thin in some areas, while the underlying geotextile fabric was not exposed (Appendix A; Photo 10).

No evidence of differential settling or vertical displacement was observed. Overall, the gravel cover was found to be in good condition and functioning properly with no apparent potential for exposure of the underlying subgrade observed. Weiss recommends that LRTC continue to regularly inspect the gravel cover and perform corrective actions as detailed in Section 6.

5.3 Storm Water Collection System Inspection

Visual observations were conducted at the drain inlets and the SW-3, SW-4, SW-5, SW-6, and SW-7 interceptors on June 15, 2015. The interceptors were inspected in June and September 2014 during cleaning of the drainage systems. Details of video inspections of underground pipe at interceptors SW-3, SW-6, and SW-7 are described in Section 4.2. No structural improvements to the drain inlets were found to be necessary during the inspection. The interceptors were found to be in working order with no corrective actions required.

6. PROPOSED SITE WORK FOR 2015-2016

During the 2015-2016 reporting year, O&M activities will continue in accordance with the O&M Plan (PES, 1999):

- Storm water discharge samples will be collected from the combined SW-3 through SW-7 discharge location.
- An annual inspection of the concrete cap and gravel cover in the Upland Area will be performed in the early summer of 2016.
- Inspections of the upland capping system, including the drainage system, will continue as part of the SWPPP (Weiss, 2015) compliance activities and daily operations.

Any repairs to the cap, if required, will be documented and reported in a memorandum to the USEPA and the California Department of Toxic Substances Control. Proposed Site work under the O&M Plan for 2015-2016 is presented in Table 4.

LRTC is in the process of installing a roadway in the upland cap area across three railroad tracks as shown in Figure 4. This work is outside the scope of the O&M Plan but is planned to be completed during the 2015-2016 reporting year.

7. CONCLUSIONS

The annual upland capping system inspection found that the surface cap is in overall good condition and effectively functions to prevent erosion of the underlying soil. Damage was discovered in the underground storm water collection systems at SW-3 and SW-5, which was repaired during the 2014-2015 season.

Continued monitoring and maintenance is required. Maintenance recommendations include:

- Add gravel to gravel cover areas of SW-4 and SW-5;
- Monitor deteriorated concrete in the southern portion of the eastern swale of the Main Terminal at SW-6, and replace affected sections of concrete should further deterioration occur or evidence of underlying soil be observed;
- Implement BMPs identified in the LRT SWPPP (Weiss, 2015).

Pesticides were detected in storm water discharge samples during the 2014-2015 storm water season at concentrations consistent with historical detections. Continued monitoring of the Upland Area's storm water discharges for the presence of pesticides is necessary.

A storm water treatment system will be installed near the SW-5 interceptor to treat the combined storm water discharge from the Upland Cap Area. Treatment will include flocculation, sedimentation, and filtration.

8. REFERENCES

- PES Environmental, Inc., 1999. *Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site*, March.
- State Water Resources Control Board, 1997. *Water Quality Order 97-03-DWQ for National Pollutant Discharge Elimination System General Permit No. CAS000001 (Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities excluding Construction Activities)*, April.
- United States District Court, Northern District of California, 1996. *Consent Decree, Levin Group RD/RA, United States of America Plaintiff v. Montrose Chemical Corporation of California, et al.*, June.
- United States Environmental Protection Agency (USEPA), 1994a. *Feasibility Study for the United Heckathorn Superfund Site, Richmond, California*. July.
- USEPA, 1994b. *EPA Superfund Record of Decision: United Heckathorn Co., EPA ID: CAD981436363; OU 01, Richmond, CA*, EPA/ROD/R09-96/5021996, October.
- USEPA, 2011. *Third Five-Year Review Report for United Heckathorn Superfund Site, Richmond, California*, September.
- Weiss, 2014a. *2013-2014 Annual Report for the United Heckathorn Superfund Site, Upland Capping System, Richmond, California*, July.
- Weiss, 2014b. *Storm Water Pollution Prevention Plan and Monitoring and Reporting Plan for Levin Richmond Terminal*, 402 Wright Avenue, Richmond, California. September.
- Weiss, 2015. *Storm Water Pollution Prevention Plan and Monitoring and Reporting Plan for Levin Richmond Terminal*, 402 Wright Avenue, Richmond, California. June.

FIGURES



Figure 1. Site Location Map — United Heckathorn Superfund Site, Richmond, California



Figure 2. Site Layout — United Heckathorn Superfund Site, Richmond, California

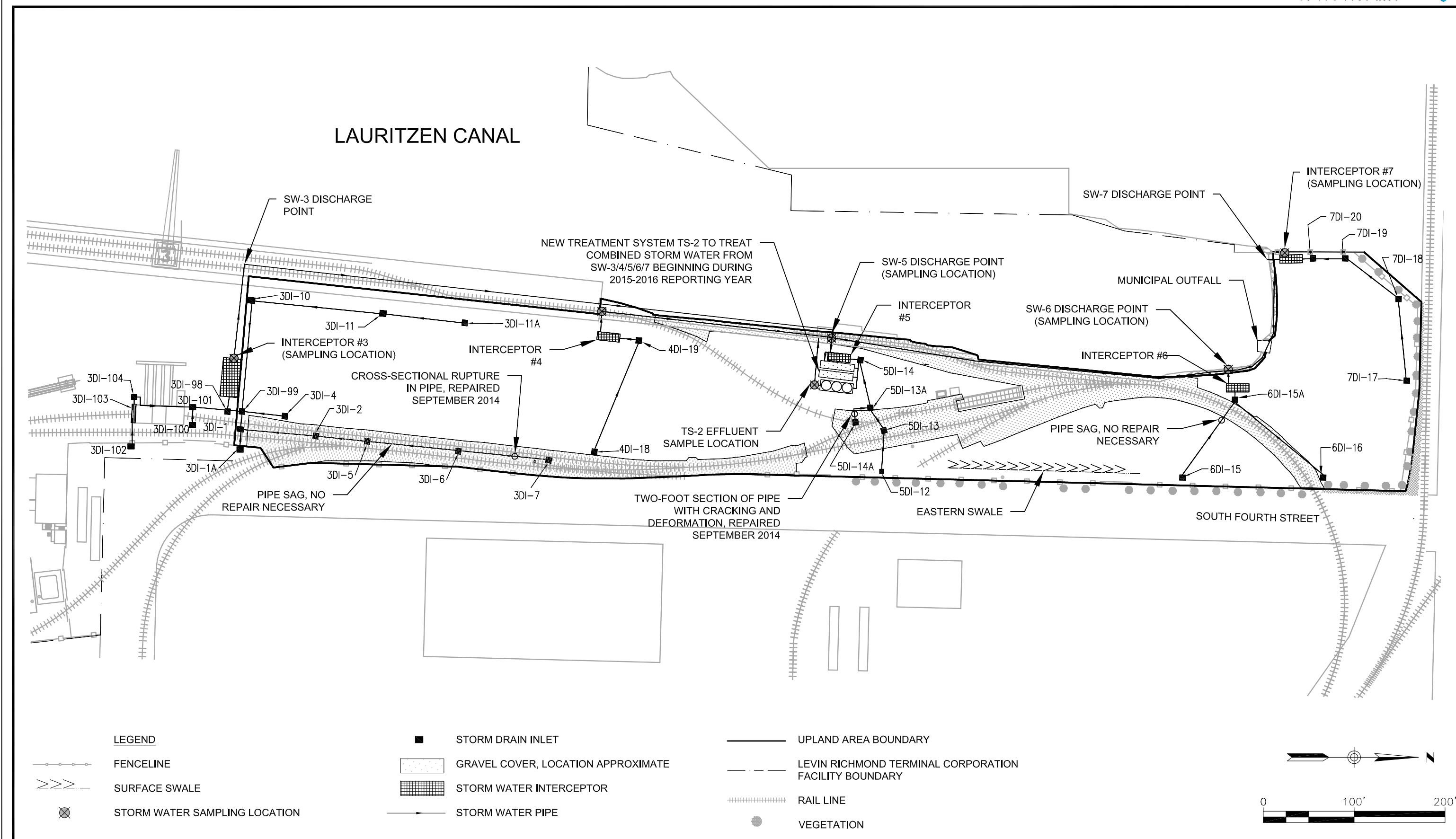
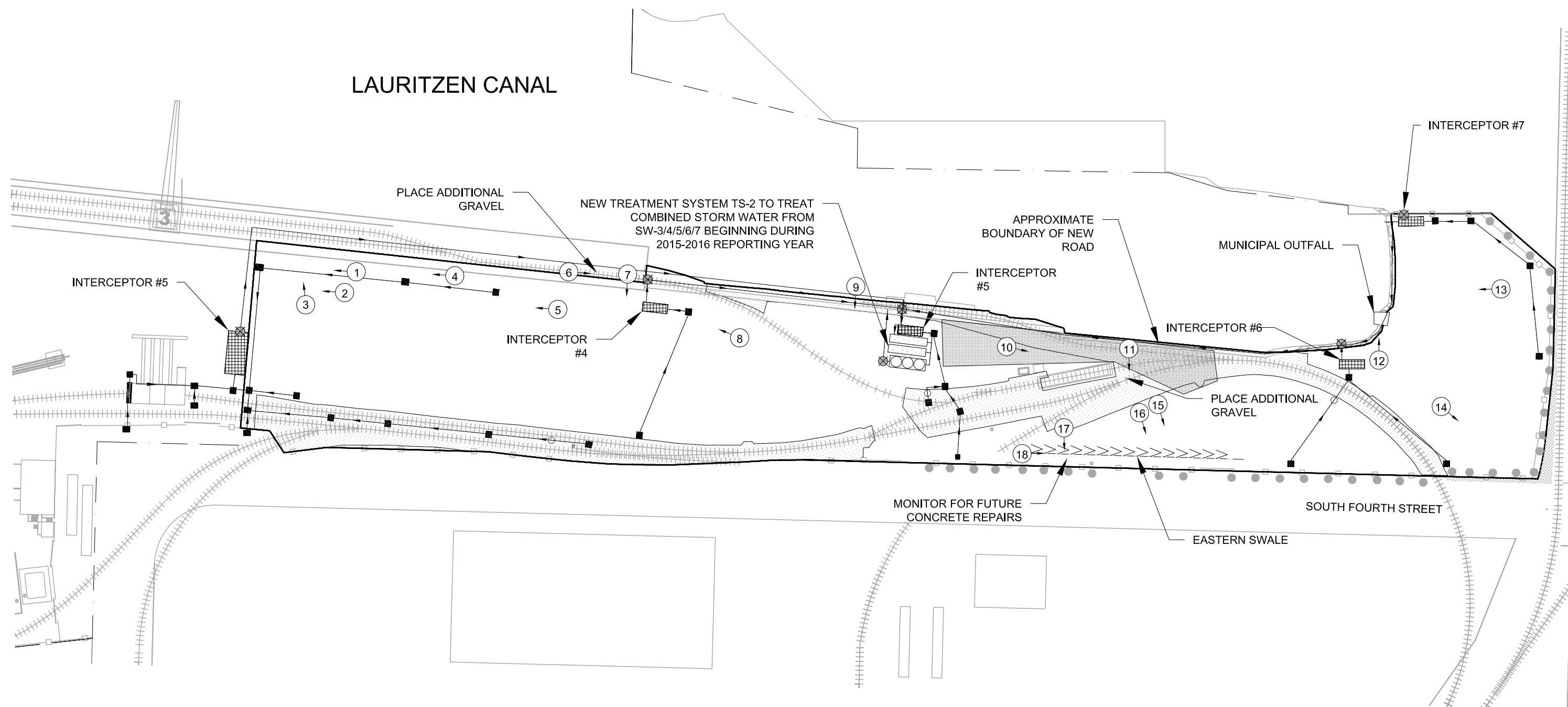


Figure 3. Upland Area Storm Water Collection System Inspection Results and Repairs, United Heckathorn Superfund Site, Richmond, California

LAURITZEN CANAL



LEGEND

	FENCELINE		STORM DRAIN INLET		UPLAND AREA BOUNDARY
	PHOTOGRAPH LOCATION, VIEW DIRECTION, NUMBER		GRAVEL COVER, LOCATION APPROXIMATE		LEVIN RICHMOND TERMINAL CORPORATION FACILITY BOUNDARY
	STORM WATER SAMPLING LOCATION		STORM WATER INTERCEPTOR		RAIL LINE
	SURFACE SWALE		STORM WATER PIPE		VEGETATION
			NEW ROAD, LOCATION APPROXIMATE		

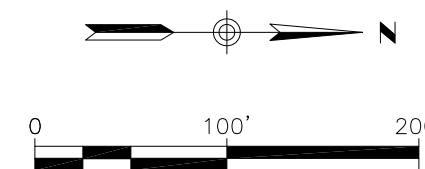


Figure 4. Upland Area Photo Locations and Maintenance Recommendations, United Heckathorn Superfund Site, Richmond, California

TABLES

Table 1. 2014-2015 Annual Storm Water Sampling Data for Pesticides, United Heckathorn Superfund Site, Richmond, California

Discharge Location	Notes	4,4'-DDD	4,4'-DDE	4,4'-DDT	Aldrin	alpha-BHC	alpha-Chlordane	beta-BHC	Chlordane	delta-BHC	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	gamma-BHC (Lindane)	gamma-Chlordane	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
Sample Date		←											µg/L	→								
SW-3																						
11/20/2014		<0.0019	<0.0019	<0.0019	<0.0019	<0.096	<0.0019	<0.096	<0.96	<0.096	<0.0019	<0.096	<0.096	<0.096	<0.0019	<0.096	<0.0019	<0.0019	0.0016	<0.0019	<0.096	<0.024
12/2/2014		0.0028	0.014	0.019	<0.0020	<0.097	<0.0020	<0.097	<0.97	<0.097	<0.0020	<0.097	<0.097	<0.097	<0.0020	<0.097	<0.0020	<0.0020	<0.0020	<0.0020	<0.097	<0.025
12/2/2014	Duplicate	0.0025	0.014	0.019	<0.0019	<0.097	<0.0019	<0.097	<0.97	<0.097	<0.0019	<0.097	<0.097	<0.097	<0.0019	<0.097	<0.0019	<0.0019	<0.0019	<0.0019	<0.097	<0.024
12/11/2014		0.0023	<0.0022	0.039	<0.0022	<0.095	<0.0022	<0.095	<0.95	<0.095	<0.0022	0.030	<0.095	<0.095	<0.0022	<0.095	<0.0022	<0.0022	<0.0022	<0.0022	<0.095	<0.027
SW-4/5/6/7																						
11/20/2014		<0.0019	<0.0019	0.020	<0.0019	<0.096	<0.0019	<0.096	<0.96	<0.096	<0.0019	0.042	<0.096	<0.096	0.011	<0.096	<0.0019	<0.0019	<0.0019	<0.0019	<0.096	<0.024
11/20/2014	Duplicate	<0.0019	<0.0019	0.022	<0.0019	<0.10	<0.0019	<0.10	<1.0	<0.10	<0.0019	0.039	<0.10	<0.10	0.012	<0.10	<0.0019	<0.0019	<0.0019	<0.0019	<0.10	<0.024
12/2/2014		<0.0019	<0.0019	0.0035	<0.0019	<0.096	<0.0019	<0.096	<0.96	<0.096	<0.0019	<0.096	<0.096	<0.096	<0.0019	<0.096	<0.0019	<0.0019	<0.0019	<0.0019	<0.096	<0.024
12/11/2014		0.0033	<0.0019	0.0049	<0.0019	<0.095	<0.0019	<0.095	<0.95	<0.095	<0.0019	<0.095	<0.095	<0.095	<0.0019	<0.095	<0.0019	<0.0019	<0.0019	<0.0019	<0.095	<0.024
Final Remediation Level ^a		0.00059					0.00014															

Notes:
Data presented is from 2014-2015 storm water sampling events.
Detected concentrations are displayed in **bold**.
^a Based on USEPA Superfund Record of Decision: United Heckathorn Co., October 1994, for surface waters in the Lauritzen, Santa Fe, and lower Richmond Inner Harbor Channels.

Acronyms/Abbreviations:
J - concentration reported is an estimated value
TPH - total petroleum hydrocarbons
µg/L - micrograms per liter
USEPA - United States Environmental Protection Agency
<n - not detected above the reporting limit
--- - not analyzed

Table 2. 2014-2015 Annual Storm Water Sampling Data for General Parameters and Metals, United Heckathorn Superfund Site, Richmond, California

Discharge Location / Sample Date	Notes	pH	Specific Conductance µmhos/cm	Total Oil and Grease mg/L	Total Suspended Solids mg/L	Aluminum µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Nickel µg/L	Zinc µg/L
SW-3											
11/20/2014		6.92	3,500	<5.6	190	1,300	14	J 2,600	9.6	J 6.5	J 210
12/2/2014		7.31	890	<6.6	120	950	7.6	2,100	7.7	3.3	100
12/2/2014	Duplicate	7.31	900	<5.2	120	1,000	7.4	2,100	7.6	3.2	100
12/11/2014		7.82	3,100	2.5	J 280	2,700	13	3,700	10	5.5	J 170
SW-4/5/6/7											
11/20/2014		7.71	230	<5.5	10	160	26	670	11	4.9	400
11/20/2014	Duplicate	7.71	230	<5.5	9.0	190	27	700	12	5.0	410
12/2/2014		6.80	220	<5.2	79	830	8.9	1,300	7.5	2.9	J 96
12/11/2014		7.61	540	1.2	J 20	480	J 5.7	430	1.9	J <15	91

Acronyms/Abbreviations:

J - concentration reported is an estimated value

mg/L - milligrams per liter

µg/L - micrograms per liter

µmhos/cm - microsiemens per centimeter

--- - not analyzed

<n - not detected above the reporting limit

Table 3. Waste Characterization Sample Results, United Heckathorn Superfund Site, Richmond, California

	Regulatory Thresholds			SW-4 and SW-5 Solid Waste 6/25/2014	SW-4 and SW-5 Solid Waste Extract 6/25/2014		SW-3, SW-6, and SW-7 Solid Waste 9/5/2014
	TTLc	TCLP	STLC	Result ^a	TCLP Result	STLC Result	Result ^a
Fish Toxicity							
96 Hour Acute Toxicity	-	-	-	PASS	-	-	-
Volatiles				µg/kg			µg/kg
Benzene	-	500	-	<5.0	-	-	-
Ethylbenzene	-	-	-	<5.0	-	-	-
Toluene	-	-	-	<5.0	-	-	-
Xylenes, total	-	-	-	<9.9	-	-	-
TPH				mg/kg			mg/kg
TPH-G	-	-	-	<0.250	-	-	-
TPH-D	-	-	-	770	-	-	-
TPH-MO	-	-	-	3,100	-	-	-
Pesticides				µg/kg			µg/kg
Aldrin	1,400	-	140	<1.9	-	-	<1.9
Chlordane	2,500	30	250	<39	-	-	<39
4,4-DDT	1,000 ^b	-	100 ^b	290	-	-	7.8
4,4-DDE	1,000 ^b	-	100 ^b	190	-	-	11
4,4-DDD	1,000 ^b	-	100 ^b	290	-	-	26
Total DDT	1,000 ^b	-	100 ^b	770	-	-	44.8
Dieldrin	8,000	-	800	25	-	-	<1.9
Endrin	200	20	20	<1.9	-	-	<1.9
Heptachlor	4,700	8	470	<1.9	-	-	<1.9
Methoxychlor	100,000	10000	10,000	<1.9	-	-	<1.9
Metals				mg/kg	mg/L		mg/kg
Antimony	500	NE	15	<1.8	-	-	<2.1
Arsenic	500	5.0	5.0	5.0	-	-	4.6
Barium	10,000	100	100	130	-	-	160
Beryllium	75	NE	0.75	<0.35	-	-	1.60
Cadmium	100	1.0	1.0	1.8	-	-	0.89
Chromium	2,500	5	5	44	-	-	26
Cobalt	8,000	NE	80	11	-	-	18
Copper	2,500	NE	25	88	-	-	28
Lead	1,000	5.0	5.0	180	<0.050	8.2	22
Mercury	20	0.2	0.2	0.59	-	-	0.11
Molybdenum	3,500	NE	350	5.1	-	-	<2.1
Nickel	2,000	NE	20	98	-	-	74
Selenium	100	1.0	1.0	<3.5	-	-	<4.3
Silver	500	5	5	<0.88	-	-	<1.1

Table 3. Waste Characterization Sample Results, United Heckathorn Superfund Site, Richmond, California

	Regulatory Thresholds			SW-4 and SW-5 Solid Waste 6/25/2014	SW-4 and SW-5 Solid Waste Extract 6/25/2014		SW-3, SW-6, and SW-7 Solid Waste 9/5/2014
	Date			Result ^a	TCLP	STLC	Result ^a
	TTLC	TCLP	STLC		Result	Result	
Metals (cont.)				mg/kg	mg/L		mg/kg
Thallium	700	NE	7.0	<1.8	-	-	<2.1
Vanadium	2,400	NE	24	84	-	-	150
Zinc	5,000	NE	250	640	-	-	160

Notes:

Bold values represent waste constituent concentrations exceeding one or more of the toxicity threshold concentrations for the constituent.

^a Analytical results provided are wet basis concentrations.

^b The STLC and TTLC values of 100 and 1,000 µg/kg, respectively, are for total DDT (sum of DDT, DDE, and DDD concentrations).

Abbreviations:

4,4-DDD - 4,4-dichlorodiphenyldichloroethane

4,4-DDE - 4,4-dichlorodiphenyldichloroethene

4,4-DDT - 4,4-dichlorophenyltrichloroethane

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

NE - not established

STLC - Soluble Threshold Limit Concentration per Table II- List of Inorganic Persistent and Bioaccumulative Toxic Substances and their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values (Title 22, California Code of Regulations, §66261.24)

TCLP - Toxicity Characteristic Leaching Procedure maximum concentration for toxicity per Table 1- *Maximum Concentration of Contaminants for the Toxicity Characteristic* (Title 40 Code of Federal Regulations, §261.24)

TPH-D - total petroleum hydrocarbons as diesel

TPH-G - total petroleum hydrocarbons as gasoline

TPH-MO - total petroleum hydrocarbon as motor oil

TTLC - Total Threshold Limit Concentration per Table II- List of Inorganic Persistent and Bioaccumulative Toxic Substances and their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values (Title 22, California Code of Regulations, §66261.24)

µg/kg - micrograms per kilogram

USEPA - United States Environmental Protection Agency

--- - not analyzed

<n - not detected above the reporting limit

Table 4. Proposed Site Work for 2015-2016, United Heckathorn Superfund Site, Richmond, California

Aspect	Description	Anticipated Completion Date
General	Implement all activities (i.e., cap maintenance, storm water monitoring, interceptor cleanout) described in the O&M Plan. ¹	Continuously
	Submit report of O&M performed for the period of July 1, 2015 to June 30, 2016.	On/around July 15, 2016
Concrete Cap	Perform 2015-2016 annual inspection of the cap under oversight of a registered engineer.	June 1, 2016
	Monitor deteriorated concrete in the southern portion of the eastern swale of the Main Terminal identified in Photos 17 and 18 (Appendix A); replace affected sections should evidence of underlying soil be observed.	Continuously
	Monitor identified cracks, seals, and joints for signs of propagation and/or degradation throughout upland capping system.	Continuously
Gravel Cover	Add gravel to the interceptor SW-4 and SW-5 areas identified in Photos 7 and 11 (Appendix A) to ensure proper coverage.	October 1, 2015
	Monitor the gravel cover throughout the Upland Area for signs of thinning or ground exposure.	Continuously
Storm Water System	Install storm water treatment at the SW-5 discharge location to treat combined storm water pumped from interceptors SW-3, SW-4, SW-5, SW-6, and SW-7 using flocculation, settling, and filtration methods.	October 1, 2015
	Continue developing trend graphs showing temporary and spatial distribution of detected pesticides for the preceding five years.	July 15, 2016

¹ Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site, PES Environmental, Inc., March 1999.

APPENDIX A

UPLAND CAPPING SYSTEM INSPECTION PHOTOGRAPHS

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 1 – Looking south along western alley of secondary storage area: surficial cracking in SW-3 area, with sealed crack in foreground.



Photo 2 – Looking south along western alley of secondary storage area: sealed surficial cracks at concrete seam.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 3 – Looking west across western alley of secondary storage area: surficial cracking in SW-3 area.



Photo 4 – Looking south along western alley of secondary storage area: surficial cracking near drain inlet 3DI-11.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site

Richmond, California



Photo 5 - Looking south toward drain inlet 3DI-11A: areas of surficial cracking and concrete seam.



Photo 6 – Looking north, surficial cracks and areas with sparse gravel coverage; area will be modified to have combination of gravel and concrete cap.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 7 – Looking east from corner of interceptor SW-4: crack extending east with sealant added in December 2013.



Photo 8 – Looking southwest toward 4DI-19: surficial cracks. sealant added in December 2013.

Appendix A
Upland Capping System Inspection Photographs
2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 9 - Looking east: surficial cracks.



Photo 10 - Looking north: gravel cover.

Appendix A
Upland Capping System Inspection Photographs
2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 11 – Looking east: surficial cracks.



Photo 12 – Looking west toward Municipal Outfall: seams and surficial cracks.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 13 - Northwest corner of site, looking south near interceptor SW-7: minor surface cracks noted.



Photo 14 - Northeast corner of site: minor surface cracks.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 15- Area southeast of interceptor SW-6: minor surface cracks.



Photo 16 – Area southeast of interceptor SW-6: minor surface cracks.

Appendix A

Upland Capping System Inspection Photographs

2014-2015 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 17 – Looking east, north of 5DI-14A: areas of minor concrete deterioration.



Photo 18 – Looking east, north of 5DI-14A: areas of minor concrete deterioration.

APPENDIX B

2014-2015 ANNUAL STORM WATER MONITORING REPORT



LEVIN RICHMOND TERMINAL CORPORATION
402 WRIGHT AVENUE
RICHMOND, CA 94804
(510) 232-4422 FAX (510) 236-1827

June 30, 2015

Regional Water Quality Control Board—San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

RE: 2014-2015 Annual Report for Storm Water Discharges Associated with Industrial Activities
Levin Richmond Terminal Corporation
WDID No.: 2 07I002394

Dear Mr. Pham:

Enclosed please find the *2014-2015 Annual Report for Storm Water Discharges Associated with Industrial Activities* presenting storm water monitoring data and observations related to storm water compliance activities at the Levin Richmond Terminal Facility, located at 402 Wright Avenue, Richmond, California. Storm water compliance activities were conducted under the requirements of the *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities* specified in the State Water Resources Control Board (SWRCB) Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (*Industrial General Permit*).

Please feel free to contact me if you have any questions or concerns with the attached report.

Sincerely,

Gary Levin
Chief Executive Officer
(510) 307-4091

Attachment A. 2014-2015 Annual Report for Storm Water Discharges Associated with Industrial Activities
Attachment B. 2014-2015 Annual Report for Storm Water Discharges Associated with Industrial Activities - Additional Explanations
Attachment C. Analytical Data
Table 1. 2014-2015 Annual Storm Water Sampling Data for General Parameters and Metals
Table 2. 2014-2015 Annual Storm Water Sampling Data for Detected Pesticides
2014-2015 Laboratory Analytical Reports

ATTACHMENT A

**2014-2015 ANNUAL REPORT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES**

**2014-2015 ANNUAL REPORT FOR STORM WATER
DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES**

for

**Levin Richmond Terminal Corporation
WDID No.: 2 07I002394**

Prepared for

**Regional Water Quality Control Board – San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612**

June 30, 2015

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
2014-2015 ANNUAL REPORT
FOR STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2014 through June 30, 2015

An Annual Report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. **Retain a copy of the completed Annual Report for your records.**

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers, and e-mail addresses of the Regional Board contacts, as well as the Regional Board Offices addresses are indicated below.

REGIONAL BOARD INFORMATION:

San Francisco Bay Region
1515 Clay Street, Ste.1400
Oakland, CA 94612

Contact: Danny Pham
Tel: (510) 622-2300
Email: r2stormwater@waterboards.ca.gov

GENERAL INFORMATION

A. Facility Information:

Levin Richmond Terminal Corp
402 Wright Ave
Richmond, CA 94804

WDID NO: 2 071002394

SIC Code(s):

4491 Marine Cargo Handling

Contact: Gary Levin
Email:
Tel: 510-307-4091

B. Facility Operator Information:

Levin Richmond Terminal Corp
402 Wright Ave
Richmond, CA 94804

Contact: Gary Levin
Email: garyl@levinterminal.com
Tel: 510-307-4091

C. Facility Billing Information:

Levin Richmond Terminal Corp
402 Wright Ave
Richmond, CA 94804

Contact: Gary Levin
Email: garyl@levinterminal.com
Tel: 510-307-4091

Additional Table D Parameters: Al,Fe,Pb,Zn

2014-2015
ANNUAL REPORT

SPECIFIC INFORMATION

MONITORING AND REPORTING PROGRAM

D. SAMPLING AND ANALYSIS EXEMPTIONS AND REDUCTIONS

1. For the reporting period, was your facility exempt from collecting and analyzing samples from **two** storm events in accordance with sections B.12 or 15 of the General Permit?

☐ **YES** Go to Item D.2

☐ **NO** Go to Section E

2. Indicate the reason your facility is exempt from collecting and analyzing samples from **two** storm events. Attach a copy of the first page of the appropriate certification if you check boxes ii, iii, iv, or v.

- i. ☐ Participating in an Approved Group Monitoring Plan

Group Name: _____

- ii. ☐ Submitted **No Exposure Certification (NEC)**

Date Submitted: _____

Re-evaluation Date: _____

Does facility continue to satisfy NEC conditions?

☐ YES

☐ NO

- iii. ☐ Submitted **Sampling Reduction Certification (SRC)**

Date Submitted: _____

Re-evaluation Date: _____

Does facility continue to satisfy SRC conditions?

☐ YES

☐ NO

- iv. ☐ Received Regional Board Certification

Certification Date: _____

- v. ☐ Received Local Agency Certification

Certification Date: _____

3. If you checked boxes i or iii above, were you scheduled to sample **one** storm event during the reporting year?

☐ **YES** Go to Section E

☐ **NO** Go to Section F

4. If you checked boxes ii, iv, or v, go to Section F.

E. SAMPLING AND ANALYSIS RESULTS

1. How many storm events did you sample? _____

If less than 2, **attach explanation** (if you checked item D.2.i or iii. above, only attach explanation if you answer "0").

2. Did you collect storm water samples from the first storm of the wet season that produced a discharge during scheduled facility operating hours? (Section B.5 of the General Permit)

☐ **YES**

☐ **NO, attach explanation** (Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)

3. How many storm water discharge locations are at your facility? _____

4. For each storm event sampled, did you collect and analyze a sample from each of the facility's storm water discharge locations? ☐ YES, go to Item E.6 ☐ NO
5. Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit? ☐ YES ☐ NO, **attach explanation**
- If "YES", **attach documentation** supporting your determination that two or more drainage areas are substantially identical.
- Date facility's drainage areas were last evaluated _____
6. Were all samples collected during the first hour of discharge? ☐ YES ☐ NO, **attach explanation**
7. Was all storm water sampling preceded by three (3) working days without a storm water discharge? ☐ YES ☐ NO, **attach explanation**
8. Were there any discharges of stormwater that had been temporarily stored or contained? (such as from a pond) ☐ YES ☐ NO, go to Item E.10
9. Did you collect and analyze samples of temporarily stored or contained storm water discharges from two storm events? (or one storm event if you checked item D.2.i or iii. above) ☐ YES ☐ NO, **attach explanation**
10. Section B.5. of the General Permit requires you to analyze storm water samples for pH, Total Suspended Solids (TSS), Specific Conductance (SC), Total Organic Carbon (TOC) or Oil and Grease (O&G), other pollutants likely to be present in storm water discharges in significant quantities, and analytical parameters listed in Table D of the General Permit.
- a. Does Table D contain any additional parameters related to your facility's SIC code(s)? ☐ YES ☐ NO, Go to Item E.11
- b. Did you analyze all storm water samples for the applicable parameters listed in Table D? ☐ YES ☐ NO
- c. If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:
- _____ In prior sampling years, the parameter(s) have not been detected in significant quantities from two consecutive sampling events. **Attach explanation**
- _____ The parameter(s) is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation. **Attach explanation**
- _____ Other. **Attach explanation**
11. For each storm event sampled, attach a copy of the laboratory analytical reports and report the sampling and analysis results using **Form 1** or its equivalent. The following must be provided for each sample collected:
- Date and time of sample collection
 - Name and title of sampler.
 - Parameters tested.
 - Name of analytical testing laboratory.
 - Discharge location identification.
 - Testing results.
 - Test methods used.
 - Test detection limits.
 - Date of testing.
 - Copies of the laboratory analytical results.

F. QUARTERLY VISUAL OBSERVATIONS

1. **Authorized Non-Storm Water Discharges**

Section B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water discharges and their sources.

- a. Do authorized non-storm water discharges occur at your facility?

☐ **YES** ☐ **NO** Go to Item F.2

- b. Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. **Attach an explanation for any "NO" answers.** Indicate "N/A" for quarters without any authorized non-storm water discharges.

July -September ☐ **YES** ☐ **NO** ☐ **N/A** October-December ☐ **YES** ☐ **NO** ☐ **N/A**

January-March ☐ **YES** ☐ **NO** ☐ **N/A** April-June ☐ **YES** ☐ **NO** ☐ **N/A**

- c. Use **Form 2** to report quarterly visual observations of authorized non-storm water discharges or provide the following information.

- i. name of each authorized non-storm water discharge
- ii. date and time of observation
- iii. source and location of each authorized non-storm water discharge
- iv. characteristics of the discharge at its source and impacted drainage area/discharge location
- v. name, title, and signature of observer
- vi. **any** new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.

2. **Unauthorized Non-Storm Water Discharges**

Section B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources.

- a. Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources. **Attach an explanation for any "NO" answers.**

July -September ☐ **YES** ☐ **NO** October-December ☐ **YES** ☐ **NO**

January-March ☐ **YES** ☐ **NO** April-June ☐ **YES** ☐ **NO**

- b. Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?

☐ **YES** ☐ **NO** Go to item F.2.d

- c. Have each of the unauthorized non-storm water discharges been eliminated or permitted?

☐ **YES** ☐ **NO** **Attach explanation**

- d. Use **Form 3** to report quarterly unauthorized non-storm water discharge visual observations or provide the following information.

- i. name of each unauthorized non-storm water discharge.
- ii. date and time of observation.
- iii. source and location of each unauthorized non-storm water discharge.
- iv. characteristics of the discharge at its source and impacted drainage area/discharge location.
- v. name, title, and signature of observer.
- vi. **any** corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was eliminated or scheduled to be eliminated.

G. MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge or, in the case of temporarily stored or contained storm water, at the time of discharge.

1. Indicate below whether monthly visual observations of storm water discharges occurred at all discharge locations. **Attach an explanation for any "NO" answers.** Include in this explanation whether any eligible storm events occurred during scheduled facility operating hours that did not result in a storm water discharge, and provide the date, time, name and title of the person who observed that there was no storm water discharge.

	YES	NO		YES	NO
October	<input type="checkbox"/>	<input type="checkbox"/>	February	<input type="checkbox"/>	<input type="checkbox"/>
November	<input type="checkbox"/>	<input type="checkbox"/>	March	<input type="checkbox"/>	<input type="checkbox"/>
December	<input type="checkbox"/>	<input type="checkbox"/>	April	<input type="checkbox"/>	<input type="checkbox"/>
January	<input type="checkbox"/>	<input type="checkbox"/>	May	<input type="checkbox"/>	<input type="checkbox"/>

2. Report monthly wet season visual observations using **Form 4** or provide the following information.
 - a. date, time, and location of observation
 - b. name and title of observer
 - c. characteristics of the discharge (i.e., odor, color, etc.) and source of any pollutants observed.
 - d. **any** new or revised BMPs necessary to reduce or prevent pollutants in storm water discharges. Provide new or revised BMP implementation date.

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION (ACSCE)

H. ACSCE CHECKLIST

Section A.9 of the General Permit requires the facility operator to conduct one ACSCE in each reporting period (July 1-June 30). Evaluations must be conducted within 8-16 months of each other. The SWPPP and monitoring program shall be revised and implemented, as necessary, within 90 days of the evaluation. The checklist below includes the minimum steps necessary to complete a ACSCE. Indicate whether you have performed each step below. **Attach an explanation for any "NO" answers.**

1. Have you inspected all potential pollutant sources and industrial activities areas? ☐ YES ☐ NO
The following areas should be inspected:
 - areas where spills and leaks have occurred during the last year.
 - outdoor wash and rinse areas.
 - process/manufacturing areas.
 - loading, unloading, and transfer areas.
 - waste storage/disposal areas.
 - dust/particulate generating areas.
 - erosion areas.
 - building repair, remodeling, and construction
 - material storage areas
 - vehicle/equipment storage areas
 - truck parking and access areas
 - rooftop equipment areas
 - vehicle fueling/maintenance areas
 - non-storm water discharge generating areas
2. Have you reviewed your SWPPP to assure that its BMPs address existing potential pollutant sources and industrial activities areas? ☐ YES ☐ NO
3. Have you inspected the entire facility to verify that the SWPPP's site map, is up-to-date? The following site map items should be verified: ☐ YES ☐ NO
 - facility boundaries
 - outline of all storm water drainage areas
 - areas impacted by run-on
 - storm water discharges locations
 - storm water collection and conveyance system
 - structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

4. Have you reviewed all General Permit compliance records generated since the last annual evaluation? ☐ YES ☐ NO

The following records should be reviewed:

- quarterly authorized non-storm water discharge visual observations
- monthly storm water discharge visual observation
- records of spills/leaks and associated clean-up/response activities
- quarterly unauthorized non-storm water discharge visual observations
- Sampling and Analysis records
- preventative maintenance inspection and maintenance records

5. Have you reviewed the major elements of the SWPPP to assure compliance with the General Permit? ☐ YES ☐ NO

The following SWPPP items should be reviewed:

- pollution prevention team
- list of significant materials
- description of potential pollutant sources
- assessment of potential pollutant sources
- identification and description of the BMPs to be implemented for each potential pollutant source

6. Have you reviewed your SWPPP to assure that a) the BMPs are adequate in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges, and b) the BMPs are being implemented? ☐ YES ☐ NO

The following BMP categories should be reviewed:

- good housekeeping practices
- spill response
- employee training
- erosion control
- quality assurance
- preventative maintenance
- material handling and storage practices
- waste handling/storage
- structural BMPs

7. Has all material handling equipment and equipment needed to implement the SWPPP been inspected? ☐ YES ☐ NO

I. ACSCE EVALUATION REPORT

The facility operator is required to provide an evaluation report that includes:

- identification of personnel performing the evaluation
- the date(s) of the evaluation
- necessary SWPPP revisions
- schedule for implementing SWPPP revisions
- any incidents of non-compliance and the corrective actions taken.

Use **Form 5** to report the results of your evaluation or develop an equivalent form.

J. ACSCE CERTIFICATION

The facility operator is required to certify compliance with the Industrial Activities Storm Water General Permit. To certify compliance, both the SWPPP and Monitoring Program must be up to date and be fully implemented.

Based upon your ACSCE, do you certify compliance with the Industrial Activities Storm Water General Permit?

☐ YES ☐ NO

If you answered "NO" **attach an explanation** to the ACSCE Evaluation Report why you are not in compliance with the Industrial Activities Storm Water General Permit.

ATTACHMENT SUMMARY

Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1. Have you attached Forms 1,2,3,4, and 5 or their equivalent? ☒ YES (Mandatory)
2. If you conducted sampling and analysis, have you attached the laboratory analytical reports? ☒ YES ☐ NO ☐ NA
3. If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications? ☐ YES ☐ NO ☒ NA
4. Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J? ☒ YES ☐ NO ☐ NA

ANNUAL REPORT CERTIFICATION

I am duly authorized to sign reports required by the INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT (see Standard Provision C.9) and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: GARY LEVIN
Signature: Gary Levin Date: 6/30/2015
Title: CEO

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SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
TS1-E	<u>11/20/14</u> <input type="checkbox"/> AM 2:15 <input checked="" type="checkbox"/> PM	<u>1:00</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	7.82	12	1,000	< 1.4	-	160	310	5.5	240	
SW-3	<u>11/20/14</u> <input type="checkbox"/> AM 3:35 <input checked="" type="checkbox"/> PM	<u>3:30</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	6.92	190	3,500	< 1.6	-	1,300	2,600	9.6 J	210	
SW-4/5/6/7	<u>11/20/14</u> <input type="checkbox"/> AM 2:45 <input checked="" type="checkbox"/> PM	<u>1:30**</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	7.71	10	230	< 1.5	-	160	670	11	400	
SW-4/5/6/7 Duplicate	<u>11/20/14</u> <input type="checkbox"/> AM 2:50 <input checked="" type="checkbox"/> PM	<u>1:30**</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	7.71	9.0	230	< 1.5	-	190	700	12	410	
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			-	0.83 - 9.1	1.0	1.4 - 1.6	-	2.4 - 24	5.7 - 57	0.057 - 0.57	0.4 - 4.0	
TEST METHOD USED:			Portable field meter	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Self	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

**Estimate; exact discharge start time unknown.

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ANNUAL REPORT

SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

FIRST STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For First Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
SW-11	<u>11/20/14</u> <input type="checkbox"/> AM 3:00 <input checked="" type="checkbox"/> PM	<input type="checkbox"/> AM <u>1:30**</u> <input checked="" type="checkbox"/> PM	6.78	30	8,500	< 1.6	-	170	410	3.0	65	
SW-12	<u>11/20/14</u> <input type="checkbox"/> AM 4:50 <input checked="" type="checkbox"/> PM	<input type="checkbox"/> AM <u>unknown</u> <input type="checkbox"/> PM	8.01	12	160	< 1.6	-	710	2,300	13	160	
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM										
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			-	1.0 - 1.3	1.0	1.6	-	2.4	5.7	0.057	0.4	
TEST METHOD USED:			Portable field meter	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Self	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

**Estimate; exact discharge start time unknown.

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SIDE B


FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Second Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
TS1-E	<u>12/02/14</u> <input type="checkbox"/> AM 12:10 <input checked="" type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	6.85	14	200	< 1.5	-	140	170	0.73	23	
SW-3	<u>12/02/14</u> <input checked="" type="checkbox"/> AM 11:40 <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	7.31	120	890	< 1.9	-	950	2,100	7.7	100	
SW-3 Duplicate	<u>12/02/14</u> <input checked="" type="checkbox"/> AM 11:45 <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	7.31	120	900	< 1.5	-	1,000	2,100	7.6	100	
SW-4/5/6/7	<u>12/02/14</u> <input checked="" type="checkbox"/> AM 11:30 <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	6.80	79	220	< 1.5	-	830	1,300	7.5	96	
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			-	1.0 - 5.0	1.0	1.5 - 1.9	-	34	5.8	0.034	1.9	
TEST METHOD USED:			Portable field meter	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Self	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

**Estimate; exact discharge start time unknown.

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SIDE B

FORM 1-SAMPLING & ANALYSIS RESULTS

SECOND STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Second Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
SW-11	<u>12/02/14</u> <input checked="" type="checkbox"/> AM 10:55 <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	6.71	17	2,400	< 1.5	-	130	250	1.2	27	
SW-12	<u>12/02/14</u> <input type="checkbox"/> AM 1:00 <input checked="" type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM early AM**	7.49	23	76	< 1.4	-	580	1,300	6.6	75	
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM										
	<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> AM <input type="checkbox"/> PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			-	0.83 - 1.0	1.0	1.4 - 1.5	-	34	5.8	0.034	1.9	
TEST METHOD USED:			Portable field meter	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Self	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

**Estimate; exact discharge start time unknown.

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SIDE A

FORM 1-SAMPLING & ANALYSIS RESULTS

THIRD STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Third Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
TS1-E	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 9:45 <input type="checkbox"/> PM	<u>8:50</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.37	24	170	1.8 J	-	600	350	2.0	60	
SW-3	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 8:40 <input type="checkbox"/> PM	<u>8:40</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.82	280	3,100	2.5 J	-	2,700	3,700	10	170	
SW-4/5/6/7	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 8:46 <input type="checkbox"/> PM	<u>8:40</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.61	20	540	1.2 J	-	480 J	430	1.9 J	91	
SW-11	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 8:55 <input type="checkbox"/> PM	<u>8:40</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.65	39	20,000	1.2 J	-	240 J	540	1.6 J	84	
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			0.100	1.0 - 5.0	1.0 - 2.0	0.57 - 0.64	-	170	29	0.17	9.5	
TEST METHOD USED:			9040B	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Test America	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

J - estimated concentration

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

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SIDE A


FORM 1-SAMPLING & ANALYSIS RESULTS

THIRD STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Third Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
SW-11 Duplicate	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 9:00 <input type="checkbox"/> PM	<u>8:40</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.66	39	20,000	< 0.58	-	250 J	530	1.8 J	87	
SW-12	<u>12/11/14</u> <input checked="" type="checkbox"/> AM 9:10 <input type="checkbox"/> PM	<u>9:00</u> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	7.62	36	69	1.3 J	-	840	1,700	10	110	
	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM										
	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			0.100	1.3	1.0 - 2.0	0.55 - 0.58	-	170	29	0.17	9.5	
TEST METHOD USED:			9040B	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Test America	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

J - estimated concentration

*Additional parameters not required by the IGP, including copper and nickel (all discharge locations) and pesticides (locations SW-3 and SW-4/5/6/7), are included in Attachment C.

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SIDE A


FORM 1-SAMPLING & ANALYSIS RESULTS

FOURTH STORM EVENT

- If analytical results are less than the detection limit (or non detectable), show the value as less than the numerical value of the detection limit (example: <.05)
- If you did not analyze for a required parameter, do not report "0". Instead, leave the appropriate box blank
- When analysis is done using portable analysis (such as portable pH meters, SC meters, etc.), indicate "PA" in the appropriate test method used box.
- Make additional copies of this form as necessary.

NAME OF PERSON COLLECTING SAMPLE(S): Mary Cunningham

TITLE: Senior Staff Engineer

SIGNATURE: 

DESCRIBE DISCHARGE LOCATION Example: NW Out Fall	DATE/TIME OF SAMPLE COLLECTION	TIME DISCHARGE STARTED	ANALYTICAL RESULTS For Fourth Storm Event									
			BASIC PARAMETERS					OTHER PARAMETERS*				
			pH	TSS	SC	O&G	TOC	Aluminum	Iron	Lead	Zinc	
TS1-E	<u>2/6/15</u> <input type="checkbox"/> AM 1:50 <input checked="" type="checkbox"/> PM	<u>1:45</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	7.70	8.4	1,500	1.4 J	-	230	180	1.4	92	
SW-11	<u>2/6/15</u> <input type="checkbox"/> AM 2:13 <input checked="" type="checkbox"/> PM	<u>2:15</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	7.54	10	52,000	0.85 J	-	< 100	230	0.27 J	210	
SW-12	<u>2/6/15</u> <input type="checkbox"/> AM 2:05 <input checked="" type="checkbox"/> PM	<u>unkno</u> <input type="checkbox"/> AM <input type="checkbox"/> PM	7.22	55	1,100	2.7 J	-	1,900	3,600	15	240	
	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM	<u> </u> <input type="checkbox"/> AM <input type="checkbox"/> PM										
TEST REPORTING UNITS:			pH Units	mg/l	umho/cm	mg/l	mg/l	ug/L	ug/L	ug/L	ug/L	
TEST METHOD DETECTION LIMIT:			0.100	0.53 - 2.3	1.0 - 10	0.56 - 0.57	-	100	5.8	0.034	1.9	
TEST METHOD USED:			9040B	SM2540D	SM2510B	1664A	-	EPA 200.8	EPA 200.8	EPA 200.8	EPA 200.8	
ANALYZED BY (SELF/LAB):			Test America	Test America	Test America	Test America		Test America	Test America	Test America	Test America	

TSS - Total Suspended Solids

SC - Specific Conductance

O&G - Oil & Grease

TOC - Total Organic Carbon

J - estimated concentration




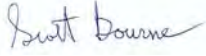
*Additional parameters not required by the IGP, including copper and nickel, are included in Attachment C.

ANNUAL REPORT

SIDE A

FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)

- Unauthorized NSWDs are discharges (such as wash or rinse waters) that do not meet the conditions provided in Section D (pages 5-6) of the General Permit.
- Quarterly visual observations are required to observe current and detect prior unauthorized NSWDs.
- Quarterly visual observations are required during dry weather and at all facility drainage areas.
- Each unauthorized NSWD source, impacted drainage area, and discharge location must be identified and observed.
- Unauthorized NSWDs that can not be eliminated within 90 days of observation must be reported to the Regional Board in accordance with Section A.10.e of the General Permit.
- Make additional copies of this form as necessary.

QUARTER: JULY-SEPT. DATE/TIME OF OBSERVATIONS <u>9/5/2014</u> <u>8:40</u> <input checked="" type="checkbox"/> AM <u> </u> <u> </u> <input type="checkbox"/> PM	Observers Name: <u>Mary Cunningham</u> Title: <u>Senior Staff Engineer</u> Signature: <u></u>	WERE UNAUTHORIZED NSWDs OBSERVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If YES to either question, complete reverse side.
QUARTER: OCT.-DEC. DATE/TIME OF OBSERVATIONS <u>12/10/2014</u> <u>9:40</u> <input checked="" type="checkbox"/> AM <u> </u> <u> </u> <input type="checkbox"/> PM	Observers Name: <u>Mary Cunningham</u> Title: <u>Senior Staff Engineer</u> Signature: <u></u>	WERE UNAUTHORIZED NSWDs OBSERVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If YES to either question, complete reverse side.
QUARTER: JAN.-MARCH DATE/TIME OF OBSERVATIONS <u>2/25/2015</u> <u>1:30</u> <input type="checkbox"/> AM <u> </u> <u> </u> <input checked="" type="checkbox"/> PM	Observers Name: <u>Mary Cunningham</u> Title: <u>Senior Staff Engineer</u> Signature: <u></u>	WERE UNAUTHORIZED NSWDs OBSERVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If YES to either question, complete reverse side.
QUARTER: APRIL-JUNE DATE/TIME OF OBSERVATIONS <u>6/15/2015</u> <u>9:30</u> <input checked="" type="checkbox"/> AM <u> </u> <u> </u> <input type="checkbox"/> PM	Observers Name: <u>Scott Bourne</u> Title: <u>Principal Engineer</u> Signature: <u></u>	WERE UNAUTHORIZED NSWDs OBSERVED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO WERE THERE INDICATIONS OF PRIOR UNAUTHORIZED NSWDs? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If YES to either question, complete reverse side.

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SIDE B

FORM 3 QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED
NON-STORM WATER DISCHARGES (NSWDs)

OBSERVATION DATE (FROM REVERSE SIDE)	NAME OF UNAUTHORIZED NSWD <u>EXAMPLE:</u> Vehicle Wash Water	SOURCE AND LOCATION OF UNAUTHORIZED NSWD <u>EXAMPLE:</u> NW Corner of Parking Lot	DESCRIBE UNAUTHORIZED NSWD CHARACTERISTICS Indicate whether unauthorized NSWD is clear, cloudy, discolored, causing stains; contains floating objects or an oil sheen, has odors, etc.		DESCRIBE CORRECTIVE ACTIONS TO ELIMINATE UNAUTHORIZED NSWD AND TO CLEAN IMPACTED DRAINAGE AREAS. PROVIDE UNAUTHORIZED NSWD ELIMINATION DATE.
			AT THE UNAUTHORIZED NSWD SOURCE	AT THE UNAUTHORIZED NSWD AREA AND DISCHARGE LOCATION	
<u>9/5/2014</u> 8:45 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	No NSWD				
<u>12/10/2014</u> 9:40 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	No NSWD				
<u>2/25/2015</u> 1:30 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM	No NSWD				
<u>6/15/2015</u> 9:30 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM	No NSWD				

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FORM 4 - MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.








- Visual observations must be conducted during the first hour of discharge at all discharge locations.

- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.

- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.

- Make additional copies of this form as necessary.


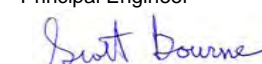
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge.

Drainage Location Description:		SW-1	SW-2	TS1-E	SW-3	SW-4	SW-5	SW-6	SW-7	SW-4/5/6/7	SW-11	SW-12
Observation Date:	October 31, 2014	Observation Time:	--	--	--	--	--	--	--	--	--	--
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge
Title:	Senior Staff Engineer	Approximate storm start date and time:	No qualified storm event in October 2014.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No	No	No	No	No	No	No	No	No	No
Observations Date:	November 20, 2014	Observation Time:	--	--	1:00 PM	2:30 PM	--	--	--	2:45 PM	3:00 PM	4:50 PM
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge ⁽¹⁾	No discharge ⁽¹⁾	1:55 PM	2:35 PM	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	1:30 PM	1:30 PM
Title:	Senior Staff Engineer	Approximate storm start date and time:	Evening of November 19, 2014.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No ⁽¹⁾	No ⁽¹⁾	Yes	Yes	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	Yes	Yes
Observations Date:	December 2, 2014	Observation Time:	--	--	12:20 PM	11:40 AM	--	--	--	11:30 AM	10:55 AM	1:00 PM
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge ⁽¹⁾	No discharge ⁽¹⁾	Early AM, unknown ⁽⁴⁾	Early AM, unknown ⁽⁴⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	Early AM, unknown ⁽⁴⁾	Early AM, unknown ⁽⁴⁾
Title:	Senior Staff Engineer	Approximate storm start date and time:	Approximately 2 AM on December 2, 2014.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No ⁽¹⁾	No ⁽¹⁾	Yes	Yes	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	Yes	Yes
Observations Date:	December 11, 2014	Observation Time:	--	--	9:45 AM	8:40 AM	--	--	--	8:46 AM	8:55 AM	9:10 AM
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge ⁽¹⁾	No discharge ⁽¹⁾	8:50 AM	8:40 AM	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	8:40 AM	8:40 AM
Title:	Senior Staff Engineer	Approximate storm start date and time:	Early morning of December 11, 2014.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No ⁽¹⁾	No ⁽¹⁾	Yes	Yes	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	Yes	Yes
Observations Date:	January 31, 2015	Observation Time:	--	--	--	--	--	--	--	--	--	--
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge
Title:	Senior Staff Engineer	Approximate storm start date and time:	No qualified storm event in January 2015.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No	No	No	No	No	No	No	No	No	No
Observations Date:	February 6, 2015	Observation Time:	--	--	1:50 PM	--	--	--	--	--	2:15 PM	2:05 PM
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge ⁽¹⁾	No discharge ⁽¹⁾	1:45 PM	No discharge	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge	Unknown ⁽³⁾
Title:	Senior Staff Engineer	Approximate storm start date and time:	Early morning of February 6, 2015.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No ⁽¹⁾	No ⁽¹⁾	Yes	No	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	No ⁽²⁾	No	Yes
Observations Date:	March 31, 2015	Observation Time:	--	--	--	--	--	--	--	--	--	--
Observer's Name:	Mary Cunningham	Time Discharge Began:	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge
Title:	Senior Staff Engineer	Approximate storm start date and time:	No qualified storm event in March 2015.									
Signature:		Were Pollutants Observed (if yes, complete reverse side):	No	No	No	No	No	No	No	No	No	No

6/30/2015

1 of 4

402 Wright Avenue, Richmond, California

Observations Date: Observer's Name: Title: Signature:	April 7, 2015 Mary Cunningham Senior Staff Engineer 	Observation Time:	--	--	9:10 AM	--	--	--	--	--	9:30 AM	9:45 AM	--
		Time Discharge Began:	No discharge ⁽¹⁾	No discharge ⁽¹⁾	6:40 AM ⁽⁵⁾	No discharge ⁽⁶⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	No discharge ⁽²⁾	9:30 AM ^(6,7)	9:45 AM	No discharge
		Approximate storm start date and time:	Approximately 1 AM on April 7, 2015.										
		Were Pollutants Observed (if yes, complete reverse side):	No	No	Yes	No	No	No	No	No	No	Yes	Yes
Observations Date: Observer's Name: Title: Signature:	May 29, 2015 Scott Bourne Principal Engineer 	Observation Time:	--	--	--	--	--	--	--	--	--	--	--
		Time Discharge Began:	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge	No discharge
		Approximate storm start date and time:	No qualified storm event in May 2015.										
		Were Pollutants Observed (if yes, complete reverse side):	No	No	No	No	No	No	No	No	No	No	No
<div>(1) Storm water from interceptors SW-1 and SW-2 routed to treatment system. See TS1-E for discharge from treatment system.</div> <div>(2) Storm water from interceptors SW-4, SW-5, SW-6, and SW-7 combined in sedimentation tank at SW-5 prior to discharge; see SW-4/5/6/7 for discharge information.</div> <div>(3) Sample collected from storage tank prior to outflow. Sample represents discharge.</div> <div>(4) Discharge began prior to business hours on December 2, 2014.</div> <div>(5) Exact start of discharge unknown. Operator started TS-1 treatment system at 0640 on 4/7/15.</div> <div>(6) Beginning in April 2015, discharge from interceptor SW-3 is routed to the combined sedimentation tank at SW-5. Discharge from the aboveground tank at SW-5 represents the combined discharge from SW-3 through SW-7.</div> <div>(7) The discharge valve from interceptor SW-5 was found to be leaking at 0920 on 4/7/15; exact start time of discharge unknown.</div>													

2014 - 2015 ANNUAL REPORT FORM 4 (continued) - MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES					
		Drainage Location Description:	Describe Storm Water Discharge Characteristics	Identify and Describe Source(s) of Pollutants	Describe any revised or new BMPs and their date of implementation
			Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining, containing floating objects or an oil sheen, has odors, etc.		
Observation Date and Time:	November 20, 2014, 1:00 PM	TS1-E	Discharge was tan with light turbidity. No solids, staining, odor, or sheen observed.	Not identified	Addition of biopolymer flocculant at treatment system TS-1 was implemented for the 2014-2015 storm season. The following additional BMPs were implemented across the site: -Updated site sweeping plan on/around 10/15/14. -Installed and test global positioning system for sweepers on/around 10/15/14. -Installed and test articulating head on single sweeping system to improve sweeping on rail track on/around 10/1/14. -Installed second covered, telescoping conveyor with drip pans on/around 10/1/14. -Established track out prevention zone and facility exits including rumble strip and delineated area on/around 10/1/14. -Installed weather station with alarm to track precipitation, wind speed and other parameters on/around 12/31/14.
Observation Date and Time:	November 20, 2014, 2:30 PM	SW-3	Discharge was dark gray/black, highly turbid, with some suspended solids. No staining, odor, or sheen observed.	Bulk product storage in the SW-3 catchment area.	Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.
Observation Date and Time:	November 20, 2014, 2:45 PM	SW-4/5/6/7	Discharge was light gray/brown, lightly turbid, and contained minimal suspended solids. No staining, odor, or sheen observed.	Not identified	Storm water from catchment areas SW-4, SW-6, and SW-7 pumped to interceptor SW-5 beginning in the 2014-2015 storm season. Combined storm water is pumped to sedimentation tank for increased solids removal prior to discharge. Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.
Observation Date and Time:	November 20, 2014, 3:00 PM	SW-11	Discharge was gray with minor suspended solids. No staining, odor, sheen, or significant turbidity observed.	Not identified	
Observation Date and Time:	November 20, 2014, 4:50 PM	SW-12	Discharge was gray/brown with minor suspended solids. No staining, odor, sheen, or significant turbidity observed.	Not identified	Construction of treatment system TS-3 anticipated before 2015-2016 rainy season.
Observation Date and Time:	December 2, 2014, 12:20 PM	TS1-E	Discharge was tan with some turbidity. No solids, staining, odor, or sheen observed.	Not identified	
Observation Date and Time:	December 2, 2014, 11:40 AM	SW-3	Discharge was dark gray and turbid. No solids, staining, odor, or sheen observed.	Bulk product storage/handling in the SW-3 catchment area.	Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.
Observation Date and Time:	December 2, 2014, 11:30 AM	SW-4/5/6/7	Discharge was gray, lightly turbid, and contained minimal suspended solids. No staining, odor, or sheen observed.	Not identified	Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.
Observation Date and Time:	December 2, 2014, 10:55 AM	SW-11	Discharge was clear/lightly gray with some turbidity. No solids, staining, odor, sheen, or significant turbidity observed.	Not identified	
Observation Date and Time:	December 2, 2014, 1:00 PM	SW-12	Discharge was clear with no noticeable turbidity. No solids, staining, odor, sheen, or significant turbidity observed.	Not identified	Construction of treatment system TS-3 anticipated before 2015-2016 rainy season.
Observation Date and Time:	December 11, 2014, 9:45 AM	TS1-E	Discharge was light tan with no noticeable turbidity. No solids, staining, odor, or sheen observed.	Not identified	
Observation Date and Time:	December 11, 2014, 8:40 AM	SW-3	Discharge was tan/gray and moderately turbid. No solids, staining, odor, or sheen observed.	Not identified	Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.
Observation Date and Time:	December 11, 2014, 8:46 AM	SW-4/5/6/7	Discharge was clear/light tan with no noticeable turbidity. No solids, staining, odor, or sheen observed.	Not identified	Construction of treatment system TS-2 anticipated before 2015-2016 rainy season.

2014 - 2015 ANNUAL REPORT FORM 4 (continued) - MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES					
		Drainage Location Description:	Describe Storm Water Discharge Characteristics Indicate whether storm water discharge is clear, cloudy, or discolored; causing staining, containing floating objects or an oil sheen, has odors, etc.	Identify and Describe Source(s) of Pollutants	Describe any revised or new BMPs and their date of implementation
Observation Date and Time:	December 11, 2014, 8:55 AM	SW-11	Discharge was tan/gray with some turbidity. No solids, staining, odor, or sheen observed.	Not identified	
Observation Date and Time:	December 11, 2014, 9:10 AM	SW-12	Discharge was gray with medium turbidity. No solids, staining, odor, or sheen observed.	Not identified	Construction of treatment system TS-3 anticipated before 2015-2016 rainy season.
Observation Date and Time:	February 6, 2015, 1:50 PM	TS1-E	Discharge was very clear. No color, turbidity, solids, staining, odor, or sheen observed.	Not identified	
Observation Date and Time:	February 6, 2015, 2:15 PM	SW-11	Discharge was very clear. No color, turbidity, solids, staining, odor, or sheen observed.	Not identified	
Observation Date and Time:	February 6, 2015, 2:05 PM	SW-12	Discharge was gray with light turbidity. No solids, staining, odor, or sheen was observed.	Not identified	Construction of treatment system TS-3 anticipated before 2015-2016 rainy season.
Observation Date and Time:	April 7, 2015, 9:10 AM	TS1-E	Discharge was gray/tan with slight turbidity. No solids, staining, odor, or sheen was observed.	Not identified	
Observation Date and Time:	April 7, 2015, 9:30 AM	SW-3/4/5/6/7	Discharge was gray/brown and cloudy/turbid. A slight petroleum odor was noted. No solids, staining, or sheen was observed.	Not identified	Storm water from catchment area SW-3 was routed to the aboveground sedimentation tank at SW-5 in April 2015. Storm water from interceptors SW-3 through SW-7 is combined in the sedimentation tank for increased solids removal prior to discharge. Construction of treatment system TS-2 anticipated before 2015-2016 rainy season. Discharge valve on SW-5 is routinely checked and repaired as needed.
Observation Date and Time:	April 7, 2015, 9:450 AM	SW-11	Discharge was dark gray and almost opaque with turbidity. A slight petroleum odor was noted. No solids, staining, or sheen was observed.	Green coke in South Parr Yard	

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SIDE A

FORM 5-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: 6/15/15

INSPECTOR NAME: Scott Bourne

TITLE: Principal Engineer

SIGNATURE:

Scott Bourne

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW1, SW2, SW6	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation No deficiencies	Describe additional/revised BMPs or corrective actions and their date(s) of implementation NA
ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW3, B-berth loading area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Tarp beneath conveyor partially out of place.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Reposition tarp immediately and recommunicate BMP maintenance requirements to maintenance supervisor by 6/16/15.
ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW4, stockpile area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Straw wattle at exterior of jackwall partially out of place.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Reposition straw wattle and recommunicate BMP maintenance requirements to maintenance supervisor by 6/30/15.
ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW5, equipment storage area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Pile of dust/debris from manual sweeping near location of SW-5 tanks was not cleaned up.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Remove sweeping dust/debris pile and recommunicate housekeeping requirements to maintenance supervisor by 6/30/15.
ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				

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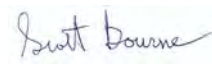
SIDE B

FORM 5 (Continued)-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS

EVALUATION DATE: 6/15/15

INSPECTOR NAME: Scott Bourne

TITLE: Principal Engineer

SIGNATURE: 

POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW7, equipment and parts storage area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Tarp over railroad ties was torn and partially out of place.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Replace tarp and recommunicate BMP maintenance requirements to maintenance supervisor by 6/30/15.
	ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW10, stockpile area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Inadequate sweeping along west edge of stockpile area.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Re-sweep along west edge of stockpile area immediately and re-communicate daily sweeping requirements to maintenance supervisor.
	ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) SW12, equipment storage area	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation Empty paint can and trailer with debris located in uncovered area.	Describe additional/revised BMPs or corrective actions and their date(s) of implementation Place paint cans under cover, sweep trailer and recommunicate BMP requirements to maintenance supervisor by 6/30/15.
	ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY AREA (as identified in your SWPPP) NA	HAVE ANY BMPs NOT BEEN FULLY IMPLEMENTED? <input type="checkbox"/> YES <input type="checkbox"/> NO	If yes, to either question, complete the next two columns of this form	Describe deficiencies in BMPs or BMP implementation	Describe additional/revised BMPs or corrective actions and their date(s) of implementation
	ARE ADDITIONAL/REVISED BMPs NECESSARY? <input type="checkbox"/> YES <input type="checkbox"/> NO			

ATTACHMENT B

ADDITIONAL EXPLANATIONS

2014-2015 Annual Report
Storm Water Discharges Associated with Industrial Activities
Levin Richmond Terminal Corporation
Additional Explanations

E.5. During each of the four storm events, samples were collected from each location that produced discharge. As a result, only a subset of the potential discharge locations were sampled during each event.

E.6. Samples were collected during the first hour of discharge during two of the four qualified storm events sampled, on December 11, 2014 and February 6, 2015. Exact discharge start times were unknown during the first qualified storm event of the year (November 20, 2014); samples were collected between approximately five minutes and an hour and half after discharge at each location. During the storm event on December 2, 2014, samples were collected after the first hour of discharge.

G.1. No qualified storm events occurred during scheduled work hours in October 2014, January 2015, March 2015, April 2015 and May 2015.

ATTACHMENT C

ANALYTICAL DATA

Table 1. 2014-2015 Annual Storm Water Sampling Data for General Parameters and Metals

Discharge Location	Notes	pH	Specific Conductance µmhos/cm	Total Oil and Grease mg/L	Total Suspended Solids mg/L	Aluminum µg/L	Copper µg/L	Iron µg/L	Lead µg/L	Nickel µg/L	Zinc µg/L	Residual Chitosan ^{d,e} mg/L
TS1-I^a												
11/20/2014		8.95	--	< 4.8	210	2,700	50	7,900	100	14	790	--
12/2/2014		6.87	160	3.8 J	230	1,600	11	3,000	19	4.5	200	--
12/11/2014		7.43	---	1.0 J	120	3,200	9.0	2,200	10	3.7 J	130	--
2/6/2015		8.31	---	< 5.4	550	4,600	41	7,700	55	18	820	--
TS1-E												
11/20/2014		7.82	1,000	< 4.9	12	160	7.5	310	5.5	2.3	240	< 0.1
12/2/2014		6.85	200	< 5.5	14	140	0.89 J	170	0.73	0.5 J	23	< 0.1
12/11/2014		7.37	170	1.8 J	24	600	2.8 J	350	2.0	< 15	60	< 0.1
2/6/2015		7.70	1,500	< 5.2	8.4	230	2.3	180	1.4	1.6 J	92	< 0.1
SW-3												
11/20/2014		6.92	3,500	< 5.6	190	1,300	14 J	2,600	9.6 J	6.5 J	210	--
12/2/2014	Duplicate	7.31	890	< 6.6	120	950	7.6	2,100	7.7	3.3	100	--
12/2/2014		7.31	900	< 5.2	120	1,000	7.4	2,100	7.6	3.2	100	--
12/11/2014		7.82	3,100	2.5 J	280	2,700	13	3,700	10	5.5 J	170	--
SW-4/5/6/7												
11/20/2014		7.71	230	< 5.5	10	160	26	670	11	4.9	400	--
11/20/2014	Duplicate	7.71	230	< 5.5	9.0	190	27	700	12	5.0	410	--
12/2/2014		6.80	220	< 5.2	79	830	8.9	1,300	7.5	2.9 J	96	--
12/11/2014		7.61	540	1.2 J	20	480 J	5.7	430	1.9 J	< 15	91	--
S PARR SW-11												
11/20/2014		6.78	8,500	< 5.7	30	170	5.1	410	3.0	4.4	65	--
12/2/2014		6.71	2,400	< 5.4	17	130	2.2	250	1.2	2.2 J	27	--
12/11/2014		7.65	20,000	1.2 J	39	240 J	5.5	540	1.6 J	5.6 J	84	--
12/11/2014	Duplicate	7.66	20,000	< 5.3	39	250 J	5.2	530	1.8 J	6.0 J	87	--
2/6/2015		7.54	52,000	< 5.3	10	< 100	2.9	230	0.27 J	4.7	210	--
N PARR SW-12												
11/20/2014		8.01	160	< 5.6	12	710	27	2,300	13	12	160	--
12/2/2014		7.49	76	< 5.1	23	580	9.1	1,300	6.6	6.6	75	--
12/11/2014		7.62	69	1.3 J	36	840	11	1,700	10	6.0 J	110	--
2/6/2015		7.22	1,100	< 5.2	55	1,900	25	3,600	15	25	240	--
SHEET-1^b												
12/11/2014		---	---	---	79	---	---	---	---	---	---	--
SHEET-2^c												
12/2/2014		7.88	---	---	2.1	---	---	---	---	---	---	--
12/11/2014		---	---	---	51	---	---	---	---	---	---	--

Notes:

^a TS1-I is the combined influent from interceptors SW-1 and SW-2 and does not represent discharge. It is used to evaluate TS-1 effectiveness.

^b SHEET-1 is a sheet flow sample collected between the Track Out Prevention Zone at the Main Yard entrance gate and the public right-of-way.

^c SHEET-2 is a sheet flow sample collected between the Track Out Prevention Zone at the South Parr Yard entrance gate and the public right-of-way.

^d Residual chitosan field tested using StormKlear HaloSource HS-SOP-5051-02 colorimetric method unless otherwise noted.

^e Residual chitosan result verified by CEL Analytical of San Francisco, CA using StormKlear HaloSource HS-SOP-5051-02 method.

Acronyms/Abbreviations:

--- = not analyzed < n = not detected above the reporting limit

J = concentration reported is an estimated value

mg/L = milligrams per liter

Table 2. 2014-2015 Annual Storm Water Sampling Data for Pesticides

	Notes	4,4'-DDD µg/L	4,4'-DDE µg/L	4,4'-DDT µg/L	Aldrin µg/L	alpha-BHC µg/L	alpha-Chlordane µg/L	beta-BHC µg/L	Chlordane µg/L	delta-BHC µg/L	Dieldrin µg/L	Endosulfan I µg/L	Endosulfan II µg/L	Endosulfan sulfate µg/L	Endrin µg/L	Endrin aldehyde µg/L	gamma-BHC (Lindane) µg/L	gamma-Chlordane µg/L	Heptachlor µg/L	Heptachlor epoxide µg/L	Methoxychlor µg/L	Toxaphene µg/L
SW-3																						
11/20/2014	Duplicate	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.096	< 0.0019	< 0.096	< 0.96	< 0.096	< 0.0019	< 0.096	< 0.096	< 0.096	< 0.0019	< 0.096	< 0.0019	< 0.0019	0.0016	< 0.0019	< 0.096	< 0.024
12/2/2014		0.0028	0.014	0.019	< 0.0020	< 0.097	< 0.0020	< 0.097	< 0.97	< 0.097	< 0.0020	< 0.097	< 0.097	< 0.097	< 0.0020	< 0.097	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.097	< 0.025
12/2/2014		0.0025	0.014	0.019	< 0.0019	< 0.097	< 0.0019	< 0.097	< 0.97	< 0.097	< 0.0019	< 0.097	< 0.097	< 0.097	< 0.0019	< 0.097	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.097	< 0.024
12/11/2014		0.0023	< 0.0022	0.039	< 0.0022	< 0.095	< 0.0022	< 0.095	< 0.95	< 0.095	< 0.0022	0.030	< 0.095	< 0.095	< 0.0022	< 0.095	< 0.0022	< 0.0022	< 0.0022	< 0.0022	< 0.095	< 0.027
SW-4/5/6/7																						
11/20/2014	Duplicate	< 0.0019	< 0.0019	0.020	< 0.0019	< 0.096	< 0.0019	< 0.096	< 0.96	< 0.096	< 0.0019	0.042	< 0.096	< 0.096	0.011	< 0.096	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.096	< 0.024
11/20/2014		< 0.0019	< 0.0019	0.022	< 0.0019	< 0.10	< 0.0019	< 0.10	< 1.0	< 0.10	< 0.0019	0.039	< 0.10	< 0.10	0.012	< 0.10	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.10	< 0.024
12/2/2014		< 0.0019	< 0.0019	0.0035	< 0.0019	< 0.096	< 0.0019	< 0.096	< 0.96	< 0.096	< 0.0019	< 0.096	< 0.096	< 0.096	< 0.0019	< 0.096	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.096	< 0.024
12/11/2014		0.0033	< 0.0019	0.0049	< 0.0019	< 0.095	< 0.0019	< 0.095	< 0.95	< 0.095	< 0.0019	< 0.095	< 0.095	< 0.095	< 0.0019	< 0.095	< 0.0019	< 0.0019	< 0.0019	< 0.0019	< 0.095	< 0.024

Notes:
Detected concentrations of pesticides are displayed in **bold**.

Acronyms/Abbreviations:
J = concentration reported is an estimated value
TPH = total petroleum hydrocarbons
< *n* =not detected above the reporting limit

--- = not analyzed
µg/L = micrograms per liter
USEPA = United States Environmental Protection Agency

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-61467-1

Client Project/Site: LRT 2014-2015 Annual Stormwater

For:

Weiss Associates

2200 Powell Street

Suite 925

Emeryville, California 94608

Attn: Mr. Scott Bourne



Authorized for release by:

12/3/2014 6:49:21 PM

Micah Smith, Project Manager II

(925)484-1919

micah.smith@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Job ID: 720-61467-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-61467-1

Comments

No additional comments.

Receipt

The samples were received on 11/21/2014 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.3° C, 0.4° C and 1.2° C.

Except:

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): TS1-E-112014 (720-61467-1). The container labels list the sampled time of 14:15, while the COC lists the sampled time of 13:15. As requested by Mary Cunningham on 12/1/14, the sample was logged in with the sampled time of 14:15.

Sample TS1-E-112014 (720-61467-1) was collected in an improper container for TSS. We received one 500 ml bottle but we should receive a 1 liter bottle for TSS. We were able to perform the analysis with the volume supplied but in the future a 1 liter bottle should be received.

Metals

Method(s) 200.8: Sample SW-3-112014 (720-61467-5) was diluted prior to digestion due to the sample matrix. The samples had a dark brown color with significant amounts of sediment present.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 221725.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: TS1-E-112014

Lab Sample ID: 720-61467-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	160		30	2.4	ug/L	1			200.8	Total Recoverable
Copper	7.5		2.0	0.27	ug/L	1			200.8	Total Recoverable
Iron	310		50	5.7	ug/L	1			200.8	Total Recoverable
Nickel	2.3		1.0	0.093	ug/L	1			200.8	Total Recoverable
Lead	5.5	B	1.0	0.057	ug/L	1			200.8	Total Recoverable
Zinc	240		5.0	0.40	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	12		3.3	1.7	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	1000		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

Client Sample ID: SW-4/5/6/7-112014

Lab Sample ID: 720-61467-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	160		30	2.4	ug/L	1			200.8	Total Recoverable
Copper	26		2.0	0.27	ug/L	1			200.8	Total Recoverable
Iron	670		50	5.7	ug/L	1			200.8	Total Recoverable
Nickel	4.9		1.0	0.093	ug/L	1			200.8	Total Recoverable
Lead	11	B	1.0	0.057	ug/L	1			200.8	Total Recoverable
Zinc	400		5.0	0.40	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	10		2.0	1.0	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	230		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

Client Sample ID: SW-4/5/6/7-112014-DUP

Lab Sample ID: 720-61467-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	190		30	2.4	ug/L	1			200.8	Total Recoverable
Copper	27		2.0	0.27	ug/L	1			200.8	Total Recoverable
Iron	700		50	5.7	ug/L	1			200.8	Total Recoverable
Nickel	5.0		1.0	0.093	ug/L	1			200.8	Total Recoverable
Lead	12	B	1.0	0.057	ug/L	1			200.8	Total Recoverable
Zinc	410		5.0	0.40	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	9.0		1.7	0.83	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	230		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-11-112014

Lab Sample ID: 720-61467-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	170		30	2.4	ug/L	1			200.8	Total Recoverable
Copper	5.1		2.0	0.27	ug/L	1			200.8	Total Recoverable
Iron	410		50	5.7	ug/L	1			200.8	Total Recoverable
Nickel	4.4		1.0	0.093	ug/L	1			200.8	Total Recoverable
Lead	3.0	B	1.0	0.057	ug/L	1			200.8	Total Recoverable
Zinc	65		5.0	0.40	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	30		2.5	1.3	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	8500		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

Client Sample ID: SW-3-112014

Lab Sample ID: 720-61467-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	1300		300	24	ug/L	1			200.8	Total Recoverable
Copper	14	J	20	2.7	ug/L	1			200.8	Total Recoverable
Iron	2600		500	57	ug/L	1			200.8	Total Recoverable
Nickel	6.5	J	10	0.93	ug/L	1			200.8	Total Recoverable
Lead	9.6	J B	10	0.57	ug/L	1			200.8	Total Recoverable
Zinc	210		50	4.0	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	190		18	9.1	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	3500		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

Client Sample ID: SW-12-112014

Lab Sample ID: 720-61467-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	710		30	2.4	ug/L	1			200.8	Total Recoverable
Copper	27		2.0	0.27	ug/L	1			200.8	Total Recoverable
Iron	2300		50	5.7	ug/L	1			200.8	Total Recoverable
Nickel	12		1.0	0.093	ug/L	1			200.8	Total Recoverable
Lead	13	B	1.0	0.057	ug/L	1			200.8	Total Recoverable
Zinc	160		5.0	0.40	ug/L	1			200.8	Total Recoverable
Total Suspended Solids	12		2.0	1.0	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	160		1.0	1.0	umhos/cm	1			SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: TS1-E-112014

Lab Sample ID: 720-61467-1

Date Collected: 11/20/14 14:15

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		30	2.4	ug/L		11/26/14 05:59	11/28/14 16:24	1
Copper	7.5		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 16:24	1
Iron	310		50	5.7	ug/L		11/26/14 05:59	11/28/14 16:24	1
Nickel	2.3		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 16:24	1
Lead	5.5	B	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 16:24	1
Zinc	240		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		4.9	1.4	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	12		3.3	1.7	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1000		1.0	1.0	umhos/cm			12/01/14 08:00	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-4/5/6/7-112014

Lab Sample ID: 720-61467-2

Date Collected: 11/20/14 14:45

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	160		30	2.4	ug/L		11/26/14 05:59	11/28/14 16:28	1
Copper	26		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 16:28	1
Iron	670		50	5.7	ug/L		11/26/14 05:59	11/28/14 16:28	1
Nickel	4.9		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 16:28	1
Lead	11	B	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 16:28	1
Zinc	400		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.5	1.5	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	10		2.0	1.0	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	230		1.0	1.0	umhos/cm			12/01/14 08:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-4/5/6/7-112014-DUP

Lab Sample ID: 720-61467-3

Date Collected: 11/20/14 14:50

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	190		30	2.4	ug/L		11/26/14 05:59	11/28/14 16:31	1
Copper	27		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 16:31	1
Iron	700		50	5.7	ug/L		11/26/14 05:59	11/28/14 16:31	1
Nickel	5.0		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 16:31	1
Lead	12	B	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 16:31	1
Zinc	410		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.5	1.5	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	9.0		1.7	0.83	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	230		1.0	1.0	umhos/cm			12/01/14 08:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-11-112014

Lab Sample ID: 720-61467-4

Date Collected: 11/20/14 15:00

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	170		30	2.4	ug/L		11/26/14 05:59	11/28/14 16:35	1
Copper	5.1		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 16:35	1
Iron	410		50	5.7	ug/L		11/26/14 05:59	11/28/14 16:35	1
Nickel	4.4		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 16:35	1
Lead	3.0	B	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 16:35	1
Zinc	65		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.7	1.6	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	30		2.5	1.3	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	8500		1.0	1.0	umhos/cm			12/01/14 08:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-3-112014

Lab Sample ID: 720-61467-5

Date Collected: 11/20/14 15:35

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1300		300	24	ug/L		11/26/14 05:59	11/28/14 16:51	1
Copper	14	J	20	2.7	ug/L		11/26/14 05:59	11/28/14 16:51	1
Iron	2600		500	57	ug/L		11/26/14 05:59	11/28/14 16:51	1
Nickel	6.5	J	10	0.93	ug/L		11/26/14 05:59	11/28/14 16:51	1
Lead	9.6	J B	10	0.57	ug/L		11/26/14 05:59	11/28/14 16:51	1
Zinc	210		50	4.0	ug/L		11/26/14 05:59	11/28/14 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.6	1.6	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	190		18	9.1	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	3500		1.0	1.0	umhos/cm			12/01/14 08:00	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-12-112014

Lab Sample ID: 720-61467-6

Date Collected: 11/20/14 16:50

Matrix: Water

Date Received: 11/21/14 15:10

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	710		30	2.4	ug/L		11/26/14 05:59	11/28/14 16:55	1
Copper	27		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 16:55	1
Iron	2300		50	5.7	ug/L		11/26/14 05:59	11/28/14 16:55	1
Nickel	12		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 16:55	1
Lead	13	B	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 16:55	1
Zinc	160		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.6	1.6	mg/L		12/01/14 10:52	12/01/14 15:06	1
Total Suspended Solids	12		2.0	1.0	mg/L			11/25/14 15:39	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	160		1.0	1.0	umhos/cm			12/01/14 08:00	1

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 180-126509/1-A

Matrix: Water

Analysis Batch: 126709

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 126509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		30	2.4	ug/L		11/26/14 05:59	11/28/14 13:43	1
Copper	ND		2.0	0.27	ug/L		11/26/14 05:59	11/28/14 13:43	1
Iron	ND		50	5.7	ug/L		11/26/14 05:59	11/28/14 13:43	1
Nickel	ND		1.0	0.093	ug/L		11/26/14 05:59	11/28/14 13:43	1
Lead	0.131	J	1.0	0.057	ug/L		11/26/14 05:59	11/28/14 13:43	1
Zinc	ND		5.0	0.40	ug/L		11/26/14 05:59	11/28/14 13:43	1

Lab Sample ID: LCS 180-126509/2-A

Matrix: Water

Analysis Batch: 126709

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 126509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2000	1890		ug/L		94	85 - 115
Copper	250	274		ug/L		110	85 - 115
Iron	1000	1030		ug/L		103	85 - 115
Nickel	500	529		ug/L		106	85 - 115
Lead	20.0	22.1		ug/L		110	85 - 115
Zinc	500	559		ug/L		112	85 - 115

Lab Sample ID: LCSD 180-126509/3-A

Matrix: Water

Analysis Batch: 126709

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 126509

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	2000	1790		ug/L		89	85 - 115	5	20
Copper	250	266		ug/L		107	85 - 115	3	20
Iron	1000	1010		ug/L		101	85 - 115	1	20
Nickel	500	517		ug/L		103	85 - 115	2	20
Lead	20.0	21.6		ug/L		108	85 - 115	2	20
Zinc	500	544		ug/L		109	85 - 115	3	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-221725/1-A

Matrix: Water

Analysis Batch: 221794

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 221725

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.0	1.4	mg/L		12/01/14 10:52	12/01/14 15:06	1

Lab Sample ID: LCS 440-221725/2-A

Matrix: Water

Analysis Batch: 221794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 221725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
SGT-HEM	10.0	7.80		mg/L		78	70 - 110

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-221725/3-A

Matrix: Water

Analysis Batch: 221794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 221725

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
SGT-HEM	10.0	8.60		mg/L		86	70 - 110	10	15

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-221679/3

Matrix: Water

Analysis Batch: 221679

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			12/01/14 08:00	1

Lab Sample ID: LCS 440-221679/4

Matrix: Water

Analysis Batch: 221679

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Specific Conductance	765	780		umhos/cm		102	90 - 110		

Lab Sample ID: 720-61467-2 DU

Matrix: Water

Analysis Batch: 221679

Client Sample ID: SW-4/5/6/7-112014

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D		RPD	RPD Limit
Specific Conductance	230		233		umhos/cm			0.9	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-220975/2

Matrix: Water

Analysis Batch: 220975

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			11/25/14 15:39	1

Lab Sample ID: LCS 440-220975/1

Matrix: Water

Analysis Batch: 220975

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids	1000	1030		mg/L		103	85 - 115		

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Metals

Prep Batch: 126509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total Recoverable	Water	200.8	
720-61467-2	SW-4/5/6/7-112014	Total Recoverable	Water	200.8	
720-61467-3	SW-4/5/6/7-112014-DUP	Total Recoverable	Water	200.8	
720-61467-4	SW-11-112014	Total Recoverable	Water	200.8	
720-61467-5	SW-3-112014	Total Recoverable	Water	200.8	
720-61467-6	SW-12-112014	Total Recoverable	Water	200.8	
LCS 180-126509/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 180-126509/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
MB 180-126509/1-A	Method Blank	Total Recoverable	Water	200.8	

Analysis Batch: 126709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total Recoverable	Water	200.8	126509
720-61467-2	SW-4/5/6/7-112014	Total Recoverable	Water	200.8	126509
720-61467-3	SW-4/5/6/7-112014-DUP	Total Recoverable	Water	200.8	126509
720-61467-4	SW-11-112014	Total Recoverable	Water	200.8	126509
720-61467-5	SW-3-112014	Total Recoverable	Water	200.8	126509
720-61467-6	SW-12-112014	Total Recoverable	Water	200.8	126509
LCS 180-126509/2-A	Lab Control Sample	Total Recoverable	Water	200.8	126509
LCSD 180-126509/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	126509
MB 180-126509/1-A	Method Blank	Total Recoverable	Water	200.8	126509

General Chemistry

Analysis Batch: 220975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total/NA	Water	SM 2540D	
720-61467-2	SW-4/5/6/7-112014	Total/NA	Water	SM 2540D	
720-61467-3	SW-4/5/6/7-112014-DUP	Total/NA	Water	SM 2540D	
720-61467-4	SW-11-112014	Total/NA	Water	SM 2540D	
720-61467-5	SW-3-112014	Total/NA	Water	SM 2540D	
720-61467-6	SW-12-112014	Total/NA	Water	SM 2540D	
LCS 440-220975/1	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-220975/2	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 221679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total/NA	Water	SM 2510B	
720-61467-2	SW-4/5/6/7-112014	Total/NA	Water	SM 2510B	
720-61467-2 DU	SW-4/5/6/7-112014	Total/NA	Water	SM 2510B	
720-61467-3	SW-4/5/6/7-112014-DUP	Total/NA	Water	SM 2510B	
720-61467-4	SW-11-112014	Total/NA	Water	SM 2510B	
720-61467-5	SW-3-112014	Total/NA	Water	SM 2510B	
720-61467-6	SW-12-112014	Total/NA	Water	SM 2510B	
LCS 440-221679/4	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 440-221679/3	Method Blank	Total/NA	Water	SM 2510B	

Prep Batch: 221725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total/NA	Water	1664A	

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

General Chemistry (Continued)

Prep Batch: 221725 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-2	SW-4/5/6/7-112014	Total/NA	Water	1664A	
720-61467-3	SW-4/5/6/7-112014-DUP	Total/NA	Water	1664A	
720-61467-4	SW-11-112014	Total/NA	Water	1664A	
720-61467-5	SW-3-112014	Total/NA	Water	1664A	
720-61467-6	SW-12-112014	Total/NA	Water	1664A	
LCS 440-221725/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-221725/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-221725/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 221794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61467-1	TS1-E-112014	Total/NA	Water	1664A	221725
720-61467-2	SW-4/5/6/7-112014	Total/NA	Water	1664A	221725
720-61467-3	SW-4/5/6/7-112014-DUP	Total/NA	Water	1664A	221725
720-61467-4	SW-11-112014	Total/NA	Water	1664A	221725
720-61467-5	SW-3-112014	Total/NA	Water	1664A	221725
720-61467-6	SW-12-112014	Total/NA	Water	1664A	221725
LCS 440-221725/2-A	Lab Control Sample	Total/NA	Water	1664A	221725
LCSD 440-221725/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	221725
MB 440-221725/1-A	Method Blank	Total/NA	Water	1664A	221725

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: TS1-E-112014

Date Collected: 11/20/14 14:15

Date Received: 11/21/14 15:10

Lab Sample ID: 720-61467-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:24	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

Client Sample ID: SW-4/5/6/7-112014

Date Collected: 11/20/14 14:45

Date Received: 11/21/14 15:10

Lab Sample ID: 720-61467-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:28	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

Client Sample ID: SW-4/5/6/7-112014-DUP

Date Collected: 11/20/14 14:50

Date Received: 11/21/14 15:10

Lab Sample ID: 720-61467-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:31	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

Client Sample ID: SW-11-112014

Date Collected: 11/20/14 15:00

Date Received: 11/21/14 15:10

Lab Sample ID: 720-61467-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:35	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Client Sample ID: SW-3-112014

Lab Sample ID: 720-61467-5

Date Collected: 11/20/14 15:35

Matrix: Water

Date Received: 11/21/14 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:51	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

Client Sample ID: SW-12-112014

Lab Sample ID: 720-61467-6

Date Collected: 11/20/14 16:50

Matrix: Water

Date Received: 11/21/14 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			126509	11/26/14 05:59	SLB	TAL PIT
Total Recoverable	Analysis	200.8		1	126709	11/28/14 16:55	WTR	TAL PIT
Total/NA	Prep	1664A			221725	12/01/14 10:52	AMR	TAL IRV
Total/NA	Analysis	1664A		1	221794	12/01/14 15:06	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	221679	12/01/14 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	220975	11/25/14 15:39	NTN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Certification Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Laboratory: TestAmerica Pleasanton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2706	06-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
1664A	1664A	Water	SGT-HEM

Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-15
California	State Program	9	2891	03-31-15
Connecticut	State Program	1	PH-0688	09-30-16
Florida	NELAP	4	E871008	06-30-15
Illinois	NELAP	5	002602	06-30-15
Kansas	NELAP	7	E-10350	01-31-15
Louisiana	NELAP	6	04041	06-30-15
New Hampshire	NELAP	1	203011	04-04-15
New Jersey	NELAP	2	PA005	06-30-15
New York	NELAP	2	11182	03-31-15
North Carolina (WW/SW)	State Program	4	434	12-31-14 *
Pennsylvania	NELAP	3	02-00416	04-30-15
South Carolina	State Program	4	89014	04-30-15
Texas	NELAP	6	T104704528	03-31-15
US Fish & Wildlife	Federal		LE94312A-1	11-30-15
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	05-31-15
Virginia	NELAP	3	460189	09-14-15
West Virginia DEP	State Program	3	142	01-31-15

* Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61467-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL PIT
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: Weiss Associates

TestAmerica Job ID: 720-61467-1

Project/Site: LRT 2014-2015 Annual Stormwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-61467-1	TS1-E-112014	Water	11/20/14 14:15	11/21/14 15:10
720-61467-2	SW-4/5/6/7-112014	Water	11/20/14 14:45	11/21/14 15:10
720-61467-3	SW-4/5/6/7-112014-DUP	Water	11/20/14 14:50	11/21/14 15:10
720-61467-4	SW-11-112014	Water	11/20/14 15:00	11/21/14 15:10
720-61467-5	SW-3-112014	Water	11/20/14 15:35	11/21/14 15:10
720-61467-6	SW-12-112014	Water	11/20/14 16:50	11/21/14 15:10

720-61467

Chain of Custody Record

TestAmerica
1220 Quarry, ne
Pleasanton, CA 94566
Phone: 925-484-1919 ext.137

INSTRUCTIONS FOR LAB PERSONNEL:
GeoTracker EDR required? ☐ Yes ☒ No
Equis 4-file EDR EDD required? ☒ Yes ☐ No
Specify analytical method and detection limit in report.
Notify us of any anomalous peaks in GC or other scans
Call immediately with any questions or problems

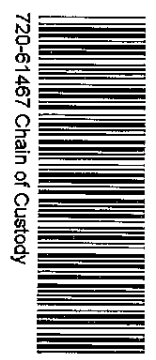
157797

Client Contact
Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608
(510) 450-6000
(510) 547-5043
Job Name: 1st 2014-2015 Annual Storm Water Sampling
Address: 402 Virginia Avenue, Richmond, CA 94804

Project Manager: Scott Bourne
Project ID: 426-2026.01 Task 1.1.3
Sampled by: MEC
Sample date(s): 11/20/14
Analysis Turnaround Time:
Standard
(Specify Days or Hours)

Protocol ID/path: J Ueno Richmond02b Sampling
COC Number:
Page 1 of 1
SDG number:
Sample Specific Notes:

Weiss Associates		Project ID: 426-2026.01 Task 1.1.3																
2200 Powell Street, Suite 925 Emeryville, CA 94608		Sampled by: MEC																
(510) 450-6000	Phone	Sample date(s): 11/20/14																
(510) 547-5043	FAX	Analysis Turnaround Time:																
Job Name: LRT 2014-2015 Annual Storm Water Sampling		Standard																
Address: Lerrin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804		(Specify Days or Hours)																
Lab ID	Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	Analyte (Method ID)												
	TS1-E-112014	11/20/14	1315	W	5	pH (EPA 9040B)												
	SW-4151619-112014	11/20/14	1445		5	Specific Conductance (SM 2510B)												
	SW-4151619-112014-DP	11/20/14	1450		5	Total Suspended Solids (SM 2540D)												
	SW-11-12014	11/20/14	1500		5	Oil & Grease (EPA 1664A SGT-HBM)												
	SW-3-12014	11/20/14	1535	V	5	Total Metals- Al,Cu, Fe, Ni, Pb, Zn (EPA 200.8 ICP-MS)												
	SW-12-12014	11/20/14	1650	W	5													



720-61467 Chain of Custody

Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).

0.4/0.3/1.2°

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
May Guirgash	Weiss	11/20/14	MEC		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TA	11/21/14	Just	TA	11/21/14 1510
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

☒ = Samples released to a secured, locked area.

• = Samples received from a secured, locked area

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61467-1

Login Number: 61467

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61467-1

Login Number: 61467

List Number: 2

Creator: Salas, Margarita

List Source: TestAmerica Irvine

List Creation: 11/25/14 02:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61467-1

Login Number: 61467

List Number: 3

Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

List Creation: 11/25/14 06:39 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



WORK ORDER NUMBER: 14-11-1863

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne
2200 Powell Street
Suite 925
Emeryville, CA 94608-1879

A handwritten signature in black ink, reading "Virendra R. Patel", enclosed in an oval.

Approved for release on 12/02/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3
 Work Order Number: 14-11-1863

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Work Order Narrative

Work Order: 14-11-1863

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/22/14. They were assigned to Work Order 14-11-1863.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: Weiss Associates	Work Order: 14-11-1863
2200 Powell Street, Suite 925	Project Name: LRT 2014-2015 Annual Storm Water Sampling /
Emeryville, CA 94608-1879	426-2026.01 Task 1.1.3
	PO Number:
	Date/Time Received: 11/22/14 09:20
	Number of Containers: 6

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SW-4/5/6/7-112014	14-11-1863-1	11/20/14 14:45	2	Aqueous
SW-4/5/6/7-112014-DUP	14-11-1863-2	11/20/14 14:50	2	Aqueous
SW-3-112014	14-11-1863-3	11/20/14 15:35	2	Aqueous

Detections Summary

Client: Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Work Order: 14-11-1863
Project Name: LRT 2014-2015 Annual Storm Water Sampling /
426-2026.01 Task 1.1.3
Received: 11/22/14

Attn: Scott Bourne

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
SW-4/5/6/7-112014 (14-11-1863-1)						
4,4'-DDT	20		1.9	ng/L	EPA 8081A	EPA 3510C
Endosulfan I	0.042	J	0.027*	ug/L	EPA 8081A	EPA 3510C
Endrin	11		1.9	ng/L	EPA 8081A	EPA 3510C
SW-4/5/6/7-112014-DUP (14-11-1863-2)						
4,4'-DDT	22		1.9	ng/L	EPA 8081A	EPA 3510C
Endosulfan I	0.039	J	0.028*	ug/L	EPA 8081A	EPA 3510C
Endrin	12		1.9	ng/L	EPA 8081A	EPA 3510C
SW-3-112014 (14-11-1863-3)						
Heptachlor	1.6	J	0.35*	ng/L	EPA 8081A	EPA 3510C

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-112014	14-11-1863-1-B	11/20/14 14:45	Aqueous	GC 51	11/24/14	11/25/14 18:26	141124L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.096	0.027	1.00	
Beta-BHC	ND	0.096	0.029	1.00	
Delta-BHC	ND	0.096	0.027	1.00	
Endosulfan I	0.042	0.096	0.027	1.00	J
Endrin Aldehyde	ND	0.096	0.025	1.00	
Endosulfan II	ND	0.096	0.026	1.00	
Endosulfan Sulfate	ND	0.096	0.028	1.00	
Methoxychlor	ND	0.096	0.024	1.00	
Chlordane	ND	0.96	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-135	
2,4,5,6-Tetrachloro-m-Xylene	93	50-135	

SW-4/5/6/7-112014-DUP	14-11-1863-2-B	11/20/14 14:50	Aqueous	GC 51	11/24/14	11/25/14 18:40	141124L03
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.10	0.028	1.00	
Beta-BHC	ND	0.10	0.030	1.00	
Delta-BHC	ND	0.10	0.029	1.00	
Endosulfan I	0.039	0.10	0.028	1.00	J
Endrin Aldehyde	ND	0.10	0.026	1.00	
Endosulfan II	ND	0.10	0.027	1.00	
Endosulfan Sulfate	ND	0.10	0.029	1.00	
Methoxychlor	ND	0.10	0.025	1.00	
Chlordane	ND	1.0	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	50-135	
2,4,5,6-Tetrachloro-m-Xylene	89	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-112014	14-11-1863-3-B	11/20/14 15:35	Aqueous	GC 51	11/24/14	11/25/14 18:54	141124L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.096	0.027	1.00	
Beta-BHC	ND	0.096	0.029	1.00	
Delta-BHC	ND	0.096	0.027	1.00	
Endosulfan I	ND	0.096	0.027	1.00	
Endrin Aldehyde	ND	0.096	0.025	1.00	
Endosulfan II	ND	0.096	0.026	1.00	
Endosulfan Sulfate	ND	0.096	0.028	1.00	
Methoxychlor	ND	0.096	0.024	1.00	
Chlordane	ND	0.96	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	50-135	
2,4,5,6-Tetrachloro-m-Xylene	91	50-135	

Method Blank	099-12-529-758	N/A	Aqueous	GC 51	11/24/14	11/25/14 18:11	141124L03
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.10	0.028	1.00	
Beta-BHC	ND	0.10	0.030	1.00	
Delta-BHC	ND	0.10	0.029	1.00	
Endosulfan I	ND	0.10	0.028	1.00	
Endrin Aldehyde	ND	0.10	0.026	1.00	
Endosulfan II	ND	0.10	0.027	1.00	
Endosulfan Sulfate	ND	0.10	0.029	1.00	
Methoxychlor	ND	0.10	0.025	1.00	
Chlordane	ND	1.0	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-135	
2,4,5,6-Tetrachloro-m-Xylene	93	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-112014	14-11-1863-1-A	11/20/14 14:45	Aqueous	GC 44	11/25/14	11/29/14 14:19	141125L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.31	1.00	
4,4'-DDD	ND	1.9	0.53	1.00	
4,4'-DDE	ND	1.9	0.46	1.00	
4,4'-DDT	20	1.9	0.53	1.00	
Alpha Chlordane	ND	1.9	0.47	1.00	
Dieldrin	ND	1.9	0.53	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	7.9	1.00	
Endrin	11	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.44	1.00	
Heptachlor	ND	1.9	0.35	1.00	
Heptachlor Epoxide	ND	1.9	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	50-150	
2,4,5,6-Tetrachloro-m-Xylene	96	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-112014-DUP	14-11-1863-2-A	11/20/14 14:50	Aqueous	GC 44	11/25/14	11/29/14 14:33	141125L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.31	1.00	
4,4'-DDD	ND	1.9	0.53	1.00	
4,4'-DDE	ND	1.9	0.46	1.00	
4,4'-DDT	22	1.9	0.53	1.00	
Alpha Chlordane	ND	1.9	0.47	1.00	
Dieldrin	ND	1.9	0.53	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	7.9	1.00	
Endrin	12	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.44	1.00	
Heptachlor	ND	1.9	0.35	1.00	
Heptachlor Epoxide	ND	1.9	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	50-150	
2,4,5,6-Tetrachloro-m-Xylene	97	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-112014	14-11-1863-3-A	11/20/14 15:35	Aqueous	GC 44	11/25/14	11/29/14 14:47	141125L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.31	1.00	
4,4'-DDD	ND	1.9	0.53	1.00	
4,4'-DDE	ND	1.9	0.46	1.00	
4,4'-DDT	ND	1.9	0.53	1.00	
Alpha Chlordane	ND	1.9	0.47	1.00	
Dieldrin	ND	1.9	0.53	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	7.9	1.00	
Endrin	ND	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.44	1.00	
Heptachlor	1.6	1.9	0.35	1.00	J
Heptachlor Epoxide	ND	1.9	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	50-150	
2,4,5,6-Tetrachloro-m-Xylene	80	50-150	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-036-13	N/A	Aqueous	GC 44	11/25/14	11/29/14 11:14	141125L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.0	0.33	1.00	
4,4'-DDD	0.80	2.0	0.55	1.00	J
4,4'-DDE	ND	2.0	0.48	1.00	
4,4'-DDT	ND	2.0	0.55	1.00	
Alpha Chlordane	ND	2.0	0.49	1.00	
Dieldrin	ND	2.0	0.55	1.00	
Gamma Chlordane	ND	2.0	0.49	1.00	
Toxaphene	ND	25	8.2	1.00	
Endrin	ND	2.0	0.31	1.00	
Gamma-BHC	0.60	2.0	0.46	1.00	J
Heptachlor	ND	2.0	0.36	1.00	
Heptachlor Epoxide	ND	2.0	0.34	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	50-150	
2,4,5,6-Tetrachloro-m-Xylene	81	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-529-758	LCS	Aqueous		GC 51	11/24/14	11/25/14 17:00	141124L03			
099-12-529-758	LCSD	Aqueous		GC 51	11/24/14	11/25/14 17:14	141124L03			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.4944	99	0.4956	99	50-135	36-149	0	0-25	
Gamma-BHC	0.5000	0.5003	100	0.5136	103	50-135	36-149	3	0-25	
Beta-BHC	0.5000	0.4108	82	0.4458	89	50-135	36-149	8	0-25	
Heptachlor	0.5000	0.5084	102	0.4579	92	50-135	36-149	10	0-25	
Delta-BHC	0.5000	0.5688	114	0.4934	99	50-135	36-149	14	0-25	
Aldrin	0.5000	0.4642	93	0.4186	84	50-135	36-149	10	0-25	
Heptachlor Epoxide	0.5000	0.4738	95	0.4706	94	50-135	36-149	1	0-25	
Endosulfan I	0.5000	0.4718	94	0.4752	95	50-135	36-149	1	0-25	
Dieldrin	0.5000	0.4955	99	0.4963	99	50-135	36-149	0	0-25	
4,4'-DDE	0.5000	0.4962	99	0.4905	98	50-135	36-149	1	0-25	
Endrin	0.5000	0.5254	105	0.5207	104	50-135	36-149	1	0-25	
Endrin Aldehyde	0.5000	0.6188	124	0.5010	100	50-135	36-149	21	0-25	
4,4'-DDD	0.5000	0.4929	99	0.4869	97	50-135	36-149	1	0-25	
Endosulfan II	0.5000	0.4834	97	0.4840	97	50-135	36-149	0	0-25	
4,4'-DDT	0.5000	0.5250	105	0.5012	100	50-135	36-149	5	0-25	
Endosulfan Sulfate	0.5000	0.4751	95	0.4776	96	50-135	36-149	1	0-25	
Methoxychlor	0.5000	0.4980	100	0.4936	99	50-135	36-149	1	0-25	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 11/22/14
Work Order: 14-11-1863
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-
2026.01 Task 1.1.3

Page 2 of 2

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-036-13	LCS	Aqueous		GC 44	11/25/14	11/29/14 11:28	141125L07			
099-16-036-13	LCSD	Aqueous		GC 44	11/25/14	11/29/14 11:43	141125L07			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	50.00	53.43	107	53.14	106	50-150	33-167	1	0-25	
4,4'-DDD	50.00	62.29	125	60.44	121	50-150	33-167	3	0-25	
4,4'-DDE	50.00	62.19	124	61.47	123	50-150	33-167	1	0-25	
4,4'-DDT	50.00	61.37	123	58.55	117	50-150	33-167	5	0-25	
Alpha Chlordane	50.00	55.26	111	57.19	114	50-150	33-167	3	0-25	
Dieldrin	50.00	61.47	123	59.54	119	50-150	33-167	3	0-25	
Gamma Chlordane	50.00	50.68	101	54.48	109	50-150	33-167	7	0-25	
Endrin	50.00	56.86	114	55.04	110	50-150	33-167	3	0-25	
Gamma-BHC	50.00	54.95	110	54.19	108	50-150	33-167	1	0-25	
Heptachlor	50.00	53.96	108	53.68	107	50-150	33-167	1	0-25	
Heptachlor Epoxide	50.00	56.24	112	55.87	112	50-150	33-167	1	0-25	

Total number of LCS compounds: 11

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 14-11-1863

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8081A	EPA 3510C	669	GC 44	1
EPA 8081A	EPA 3510C	842	GC 51	1


Return to Contents

Glossary of Terms and Qualifiers

Work Order: 14-11-1863


Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.







● = Samples received from a secured, locked area



WebShip >>>>>

800-322-5555 www.gso.com

1863

Ship From: ALAN KEMP CAL SCIENCE- CONCORD 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520 Ship To: SAMPLE RECEIVING CEL 7440 LINCOLN WAY GARDEN GROVE, CA 92841 COD: \$0.00 Reference: TERRA PACIFIC GROUP, WEISS, ARCADIS, PER, ETIC Delivery Instructions: Signature Type: SIGNATURE REQUIRED	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; padding: 5px;"> Tracking #: 526211907  </td> <td style="border: 1px solid black; text-align: center; font-size: 1.5em; font-weight: bold; padding: 10px;"> SDS </td> </tr> <tr> <td colspan="2" style="text-align: center; padding: 20px;"> <div style="font-size: 3em; font-weight: bold; margin: 0;">ORC</div> <div style="font-size: 1.5em; font-weight: bold; margin: 0;">GARDEN GROVE</div> </td> </tr> <tr> <td colspan="2" style="padding: 10px;"> <div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.5em; font-weight: bold;"> D92845A </div> <div style="text-align: center; margin-top: 10px;">  31104542 </div> </td> </tr> </table>	Tracking #: 526211907 	SDS	<div style="font-size: 3em; font-weight: bold; margin: 0;">ORC</div> <div style="font-size: 1.5em; font-weight: bold; margin: 0;">GARDEN GROVE</div>		<div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.5em; font-weight: bold;"> D92845A </div> <div style="text-align: center; margin-top: 10px;">  31104542 </div>	
Tracking #: 526211907 	SDS						
<div style="font-size: 3em; font-weight: bold; margin: 0;">ORC</div> <div style="font-size: 1.5em; font-weight: bold; margin: 0;">GARDEN GROVE</div>							
<div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.5em; font-weight: bold;"> D92845A </div> <div style="text-align: center; margin-top: 10px;">  31104542 </div>							

Print Date : 11/21/14 14:43 PM

Package 1 of 1

Send Label To Printer

☒ Print All

Edit Shipment

Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email

Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section. Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience

WORK ORDER #: 14-11-1863

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Weiss

DATE: 11/22/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.1 °C - 0.2 °C (CF) = 2.9 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 802

CUSTODY SEALS INTACT:

☒ Cooler ☐ ☐ No (Not Intact) ☐ Not Present ☐ N/A

Checked by: 802

☐ Sample ☐ ☐ No (Not Intact) ☒ Not Present

Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfides <input type="checkbox"/> Dissolved Oxygen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 776

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: 776

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-61632-1

Client Project/Site: LRTC 2014-2015 Annual Stormwater

For:

Weiss Associates

2200 Powell Street

Suite 925

Emeryville, California 94608

Attn: Mary Cunningham



Authorized for release by:

12/10/2014 6:00:52 PM

Micah Smith, Project Manager II

(925)484-1919

micah.smith@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Job ID: 720-61632-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-61632-1

Comments

No additional comments.

Receipt

The samples were received on 12/3/2014 5:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

Except:

We received only one 1 liter poly for SHEET-2-120214 (720-61632-6). All analyses were marked for that sample, however because we only received a single 1 Liter bottle the sample was only logged in for TSS.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 222932.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-11-120214

Lab Sample ID: 720-61632-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.13		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.0022		0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	0.25		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0022	J	0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0012		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.027		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	17		2.0	1.0	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	2400		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

Client Sample ID: SW-12-120214

Lab Sample ID: 720-61632-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.58		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.0091		0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	1.3		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0066		0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0066		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.075		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	23		1.7	0.83	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	76		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

Client Sample ID: SW-3-120214

Lab Sample ID: 720-61632-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.95		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.0076		0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	2.1		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0033		0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0077		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.10		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	120		6.7	3.3	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	890		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

Client Sample ID: SW-3-120214-DUP

Lab Sample ID: 720-61632-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	1.0		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.0074		0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	2.1		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0032		0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0076		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.10		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	120		10	5.0	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	900		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-4/5/6/7-120214

Lab Sample ID: 720-61632-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.83		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.0089		0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	1.3		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0029	J	0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0075		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.096		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	79		5.9	2.9	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	220		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

Client Sample ID: SHEET-2-120214

Lab Sample ID: 720-61632-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Total Suspended Solids	2.1		1.1	0.53	mg/L		1		SM 2540D	Total/NA

Client Sample ID: TS1-E-120214

Lab Sample ID: 720-61632-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.14		0.10	0.034	mg/L		1		200.8	Total/NA
Copper	0.00089	J	0.0010	0.00011	mg/L		1		200.8	Total/NA
Iron	0.17		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.00050	J	0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.00073		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.023		0.0040	0.0019	mg/L		1		200.8	Total/NA
Total Suspended Solids	14		2.0	1.0	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Specific Conductance	200		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-11-120214

Lab Sample ID: 720-61632-1

Date Collected: 12/02/14 10:55

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.13		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:09	1
Copper	0.0022		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:09	1
Iron	0.25		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:09	1
Nickel	0.0022	J	0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:09	1
Lead	0.0012		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:09	1
Zinc	0.027		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.4	1.5	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	17		2.0	1.0	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2400		1.0	1.0	umhos/cm			12/06/14 12:00	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-12-120214

Lab Sample ID: 720-61632-2

Date Collected: 12/02/14 13:00

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.58		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:13	1
Copper	0.0091		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:13	1
Iron	1.3		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:13	1
Nickel	0.0066		0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:13	1
Lead	0.0066		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:13	1
Zinc	0.075		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.1	1.4	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	23		1.7	0.83	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	76		1.0	1.0	umhos/cm			12/06/14 12:00	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-3-120214

Lab Sample ID: 720-61632-3

Date Collected: 12/02/14 11:45

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.95		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:16	1
Copper	0.0076		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:16	1
Iron	2.1		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:16	1
Nickel	0.0033		0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:16	1
Lead	0.0077		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:16	1
Zinc	0.10		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		6.6	1.9	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	120		6.7	3.3	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	890		1.0	1.0	umhos/cm			12/06/14 12:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-3-120214-DUP

Lab Sample ID: 720-61632-4

Date Collected: 12/02/14 11:40

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.0		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:20	1
Copper	0.0074		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:20	1
Iron	2.1		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:20	1
Nickel	0.0032		0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:20	1
Lead	0.0076		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:20	1
Zinc	0.10		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.2	1.5	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	120		10	5.0	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	900		1.0	1.0	umhos/cm			12/06/14 12:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-4/5/6/7-120214

Lab Sample ID: 720-61632-5

Date Collected: 12/02/14 11:30

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.83		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:24	1
Copper	0.0089		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:24	1
Iron	1.3		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:24	1
Nickel	0.0029	J	0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:24	1
Lead	0.0075		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:24	1
Zinc	0.096		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.2	1.5	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	79		5.9	2.9	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	220		1.0	1.0	umhos/cm			12/06/14 12:00	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SHEET-2-120214

Lab Sample ID: 720-61632-6

Date Collected: 12/02/14 11:10

Matrix: Water

Date Received: 12/03/14 17:43

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	2.1		1.1	0.53	mg/L			12/05/14 17:05	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: TS1-E-120214

Lab Sample ID: 720-61632-7

Date Collected: 12/02/14 12:10

Matrix: Water

Date Received: 12/03/14 17:43

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.14		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 10:28	1
Copper	0.00089	J	0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 10:28	1
Iron	0.17		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 10:28	1
Nickel	0.00050	J	0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 10:28	1
Lead	0.00073		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 10:28	1
Zinc	0.023		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.5	1.5	mg/L		12/06/14 12:09	12/06/14 14:46	1
Total Suspended Solids	14		2.0	1.0	mg/L			12/05/14 17:05	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	200		1.0	1.0	umhos/cm			12/06/14 12:00	1

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-177612/20-A

Matrix: Water

Analysis Batch: 177734

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177612

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.034	mg/L		12/08/14 12:18	12/09/14 09:28	1
Copper	ND		0.0010	0.00011	mg/L		12/08/14 12:18	12/09/14 09:28	1
Iron	ND		0.040	0.0058	mg/L		12/08/14 12:18	12/09/14 09:28	1
Nickel	ND		0.0030	0.00040	mg/L		12/08/14 12:18	12/09/14 09:28	1
Lead	ND		0.00040	0.000034	mg/L		12/08/14 12:18	12/09/14 09:28	1
Zinc	ND		0.0040	0.0019	mg/L		12/08/14 12:18	12/09/14 09:28	1

Lab Sample ID: LCS 580-177612/21-A

Matrix: Water

Analysis Batch: 177734

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177612

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	1.00	1.07		mg/L		107	85 - 115
Copper	0.100	0.101		mg/L		101	85 - 115
Iron	10.0	10.3		mg/L		103	85 - 115
Nickel	0.100	0.0992		mg/L		99	85 - 115
Lead	0.100	0.104		mg/L		104	85 - 115
Zinc	0.100	0.0998		mg/L		100	85 - 115

Lab Sample ID: LCSD 580-177612/22-A

Matrix: Water

Analysis Batch: 177734

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 177612

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	1.00	1.07		mg/L		107	85 - 115	0	20
Copper	0.100	0.0988		mg/L		99	85 - 115	2	20
Iron	10.0	10.3		mg/L		103	85 - 115	0	20
Nickel	0.100	0.0982		mg/L		98	85 - 115	1	20
Lead	0.100	0.103		mg/L		103	85 - 115	1	20
Zinc	0.100	0.0993		mg/L		99	85 - 115	0	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-222932/1-A

Matrix: Water

Analysis Batch: 223027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 222932

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	ND		5.0	1.4	mg/L		12/06/14 12:09	12/06/14 14:46	1

Lab Sample ID: LCS 440-222932/2-A

Matrix: Water

Analysis Batch: 223027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 222932

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
SGT-HEM	10.0	8.20		mg/L		82	70 - 110

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-222932/3-A

Matrix: Water

Analysis Batch: 223027

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 222932

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
SGT-HEM	10.0	8.90		mg/L		89	70 - 110	8	15

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-223029/3

Matrix: Water

Analysis Batch: 223029

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			12/06/14 12:00	1

Lab Sample ID: LCS 440-223029/4

Matrix: Water

Analysis Batch: 223029

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Specific Conductance	765	768		umhos/cm		100	90 - 110		

Lab Sample ID: 720-61632-5 DU

Matrix: Water

Analysis Batch: 223029

Client Sample ID: SW-4/5/6/7-120214

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	Prepared	Analyzed	Dil Fac	RPD	RPD Limit
Specific Conductance	220		221		umhos/cm					2	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-222913/2

Matrix: Water

Analysis Batch: 222913

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			12/05/14 17:05	1

Lab Sample ID: LCS 440-222913/1

Matrix: Water

Analysis Batch: 222913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	1000	990		mg/L		99	85 - 115		

Lab Sample ID: 720-61632-3 DU

Matrix: Water

Analysis Batch: 222913

Client Sample ID: SW-3-120214

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	Prepared	Analyzed	Dil Fac	RPD	RPD Limit
Total Suspended Solids	120		121		mg/L					0	10

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Metals

Prep Batch: 177612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	200.8	
720-61632-2	SW-12-120214	Total/NA	Water	200.8	
720-61632-3	SW-3-120214	Total/NA	Water	200.8	
720-61632-4	SW-3-120214-DUP	Total/NA	Water	200.8	
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	200.8	
720-61632-7	TS1-E-120214	Total/NA	Water	200.8	
LCS 580-177612/21-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-177612/22-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-177612/20-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 177734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	200.8	177612
720-61632-2	SW-12-120214	Total/NA	Water	200.8	177612
720-61632-3	SW-3-120214	Total/NA	Water	200.8	177612
720-61632-4	SW-3-120214-DUP	Total/NA	Water	200.8	177612
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	200.8	177612
720-61632-7	TS1-E-120214	Total/NA	Water	200.8	177612
LCS 580-177612/21-A	Lab Control Sample	Total/NA	Water	200.8	177612
LCSD 580-177612/22-A	Lab Control Sample Dup	Total/NA	Water	200.8	177612
MB 580-177612/20-A	Method Blank	Total/NA	Water	200.8	177612

General Chemistry

Analysis Batch: 222913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	SM 2540D	
720-61632-2	SW-12-120214	Total/NA	Water	SM 2540D	
720-61632-3	SW-3-120214	Total/NA	Water	SM 2540D	
720-61632-3 DU	SW-3-120214	Total/NA	Water	SM 2540D	
720-61632-4	SW-3-120214-DUP	Total/NA	Water	SM 2540D	
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	SM 2540D	
720-61632-6	SHEET-2-120214	Total/NA	Water	SM 2540D	
720-61632-7	TS1-E-120214	Total/NA	Water	SM 2540D	
LCS 440-222913/1	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-222913/2	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 222932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	1664A	
720-61632-2	SW-12-120214	Total/NA	Water	1664A	
720-61632-3	SW-3-120214	Total/NA	Water	1664A	
720-61632-4	SW-3-120214-DUP	Total/NA	Water	1664A	
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	1664A	
720-61632-7	TS1-E-120214	Total/NA	Water	1664A	
LCS 440-222932/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-222932/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-222932/1-A	Method Blank	Total/NA	Water	1664A	

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

General Chemistry (Continued)

Analysis Batch: 223027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	1664A	222932
720-61632-2	SW-12-120214	Total/NA	Water	1664A	222932
720-61632-3	SW-3-120214	Total/NA	Water	1664A	222932
720-61632-4	SW-3-120214-DUP	Total/NA	Water	1664A	222932
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	1664A	222932
720-61632-7	TS1-E-120214	Total/NA	Water	1664A	222932
LCS 440-222932/2-A	Lab Control Sample	Total/NA	Water	1664A	222932
LCSD 440-222932/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	222932
MB 440-222932/1-A	Method Blank	Total/NA	Water	1664A	222932

Analysis Batch: 223029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61632-1	SW-11-120214	Total/NA	Water	SM 2510B	
720-61632-2	SW-12-120214	Total/NA	Water	SM 2510B	
720-61632-3	SW-3-120214	Total/NA	Water	SM 2510B	
720-61632-4	SW-3-120214-DUP	Total/NA	Water	SM 2510B	
720-61632-5	SW-4/5/6/7-120214	Total/NA	Water	SM 2510B	
720-61632-5 DU	SW-4/5/6/7-120214	Total/NA	Water	SM 2510B	
720-61632-7	TS1-E-120214	Total/NA	Water	SM 2510B	
LCS 440-223029/4	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 440-223029/3	Method Blank	Total/NA	Water	SM 2510B	

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-11-120214

Date Collected: 12/02/14 10:55

Date Received: 12/03/14 17:43

Lab Sample ID: 720-61632-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:09	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Client Sample ID: SW-12-120214

Date Collected: 12/02/14 13:00

Date Received: 12/03/14 17:43

Lab Sample ID: 720-61632-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:13	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Client Sample ID: SW-3-120214

Date Collected: 12/02/14 11:45

Date Received: 12/03/14 17:43

Lab Sample ID: 720-61632-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:16	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Client Sample ID: SW-3-120214-DUP

Date Collected: 12/02/14 11:40

Date Received: 12/03/14 17:43

Lab Sample ID: 720-61632-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:20	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Client Sample ID: SW-4/5/6/7-120214

Lab Sample ID: 720-61632-5

Date Collected: 12/02/14 11:30

Matrix: Water

Date Received: 12/03/14 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:24	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Client Sample ID: SHEET-2-120214

Lab Sample ID: 720-61632-6

Date Collected: 12/02/14 11:10

Matrix: Water

Date Received: 12/03/14 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Client Sample ID: TS1-E-120214

Lab Sample ID: 720-61632-7

Date Collected: 12/02/14 12:10

Matrix: Water

Date Received: 12/03/14 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			177612	12/08/14 12:18	PAB	TAL SEA
Total/NA	Analysis	200.8		1	177734	12/09/14 10:28	FCW	TAL SEA
Total/NA	Prep	1664A			222932	12/06/14 12:09	AMR	TAL IRV
Total/NA	Analysis	1664A		1	223027	12/06/14 14:46	AMR	TAL IRV
Total/NA	Analysis	SM 2510B		1	223029	12/06/14 12:00	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	222913	12/05/14 17:05	NTN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Laboratory: TestAmerica Pleasanton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2706	06-30-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
1664A	1664A	Water	SGT-HEM

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

Method Summary

Client: Weiss Associates
Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-61632-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

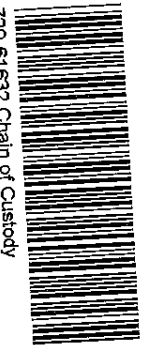
Client: Weiss Associates

TestAmerica Job ID: 720-61632-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-61632-1	SW-11-120214	Water	12/02/14 10:55	12/03/14 17:43
720-61632-2	SW-12-120214	Water	12/02/14 13:00	12/03/14 17:43
720-61632-3	SW-3-120214	Water	12/02/14 11:45	12/03/14 17:43
720-61632-4	SW-3-120214-DUP	Water	12/02/14 11:40	12/03/14 17:43
720-61632-5	SW-4/5/6/7-120214	Water	12/02/14 11:30	12/03/14 17:43
720-61632-6	SHEET-2-120214	Water	12/02/14 11:10	12/03/14 17:43
720-61632-7	TS1-E-120214	Water	12/02/14 12:10	12/03/14 17:43

720-61632



720-61632 Chain of Custody

Chain of Custody Record

TestAmerica
1220 Quarry Lane
Pleasanton, CA 94566
Phone: 925-484-1919 ext.137

Please send analytic results, electronic deliverables and the original chain-of-custody form to
labresults@weiss.com
mec@weiss.com
sah@weiss.com

INSTRUCTIONS FOR LAB PERSONNEL:
GeoTracker EDF required? ☐ Yes ☒ No
Equis 4-file EDWEDD required? ☒ Yes ☐ No
Specify analytic/prep method and detection limit in report
Notify us of any anomalous peaks in GC or other scans
Call immediately with any questions or problems

157974

Client Contact		Project Manager: Scott Bourne		Project ID: 426-2026.01 Task 1.13		Project ID/path: 1 Urem Richmond/03p Sampling		COC Number:	
Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608		Sampled by: M Cunningham		Sample date(s): 12/2/14		Analysis Turnaround Time:		Page 1 of 1	
Phone: (510) 547-5043		FAX:		Standard		Analyte (Method ID):		SDC number:	
Job Name: 1 RT 2014-2015 Annual Storm Water Sampling		Address: 402 Wright Avenue, Richmond, CA 94804		Sample Date		Sample Time		Sample Matrix	
Lab ID		Sample Identification		Sample Date		Sample Time		Sample Matrix	
1	SW-11-120214	12/2/14	1055	W	5	✓	✓	✓	✓
2	SW-12-120214		1300		5	✓	✓	✓	✓
3	SW-3-120214		1145		5	✓	✓	✓	✓
4	SW-3-120214-dup		1140		5	✓	✓	✓	✓
5	SW-4/15/6/7-120214		1130		5	✓	✓	✓	✓
6	SHEET-2-120214		1110		1	✓	✓	✓	✓
7	TSI-E-120214		1210		5	✓	✓	✓	✓
Field Filtered (X):									
Preservation Used: 1=Ice, 2=HCl, 3=H ₂ SO ₄ , 4=HNO ₃ , 5=NaOH, 6=Other									
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).									
Relinquished by: M Cunningham		Company: Weiss Associates		Date/Time: 12/3/14 1030		Received by: JH Smith		Company: T4	
Relinquished by: JH Smith		Company: T4		Date/Time: 12-3-14 1743		Received by: JH Smith		Company: T4	
Relinquished by:		Company:		Date/Time:		Received by:		Company:	

☒ = Samples released to a secured, locked area.

• = Samples received from a secured, locked area

0.10c

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61632-1

Login Number: 61632

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61632-1

Login Number: 61632

List Number: 3

Creator: Ornelas, Olga

List Source: TestAmerica Irvine

List Creation: 12/05/14 01:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61632-1

Login Number: 61632

List Source: TestAmerica Seattle

List Number: 2

List Creation: 12/05/14 10:33 AM

Creator: Tyson, Benjamin C

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR#1=9.9/11.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



WORK ORDER NUMBER: 14-12-1377

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne
2200 Powell Street
Suite 925
Emeryville, CA 94608-1879

A handwritten signature in black ink, reading "Virendra R. Patel", enclosed in an oval.

Approved for release on 12/23/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3
 Work Order Number: 14-12-1377

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Work Order Narrative

Work Order: 14-12-1377Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/13/14. They were assigned to Work Order 14-12-1377.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: Weiss Associates	Work Order: 14-12-1377
2200 Powell Street, Suite 925	Project Name: LRT 2014-2015 Annual Storm Water Sampling /
Emeryville, CA 94608-1879	426-2026.01 Task 1.1.3
	PO Number:
	Date/Time Received: 12/13/14 09:00
	Number of Containers: 4

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SW-3-121114	14-12-1377-1	12/11/14 08:40	2	Aqueous
SW-4/5/6/7-121114	14-12-1377-2	12/11/14 08:46	2	Aqueous

Detections Summary

Client: Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Work Order: 14-12-1377
Project Name: LRT 2014-2015 Annual Storm Water Sampling /
426-2026.01 Task 1.1.3
Received: 12/13/14

Attn: Scott Bourne

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
SW-3-121114 (14-12-1377-1)						
4,4'-DDD	2.3		2.2	ng/L	EPA 8081A	EPA 3510C
4,4'-DDT	3.9		2.2	ng/L	EPA 8081A	EPA 3510C
Endosulfan I	0.030	J	0.026*	ug/L	EPA 8081A	EPA 3510C
SW-4/5/6/7-121114 (14-12-1377-2)						
4,4'-DDD	3.3		1.9	ng/L	EPA 8081A	EPA 3510C
4,4'-DDT	4.9		1.9	ng/L	EPA 8081A	EPA 3510C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-121114	14-12-1377-1-B	12/11/14 08:40	Aqueous	GC 51	12/15/14	12/19/14 19:12	141215L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.095	0.027	1.00	
Beta-BHC	ND	0.095	0.029	1.00	
Delta-BHC	ND	0.095	0.027	1.00	
Endosulfan I	0.030	0.095	0.026	1.00	J
Endrin Aldehyde	ND	0.095	0.025	1.00	
Endosulfan II	ND	0.095	0.026	1.00	
Endosulfan Sulfate	ND	0.095	0.028	1.00	
Methoxychlor	ND	0.095	0.024	1.00	
Chlordane	ND	0.95	0.31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-135	
2,4,5,6-Tetrachloro-m-Xylene	83	50-135	

SW-4/5/6/7-121114	14-12-1377-2-B	12/11/14 08:46	Aqueous	GC 51	12/15/14	12/19/14 18:58	141215L04
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.095	0.027	1.00	
Beta-BHC	ND	0.095	0.029	1.00	
Delta-BHC	ND	0.095	0.027	1.00	
Endosulfan I	ND	0.095	0.026	1.00	
Endrin Aldehyde	ND	0.095	0.025	1.00	
Endosulfan II	ND	0.095	0.026	1.00	
Endosulfan Sulfate	ND	0.095	0.028	1.00	
Methoxychlor	ND	0.095	0.024	1.00	
Chlordane	ND	0.95	0.31	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-135	
2,4,5,6-Tetrachloro-m-Xylene	86	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-529-763	N/A	Aqueous	GC 51	12/15/14	12/16/14 13:01	141215L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.10	0.028	1.00	
Beta-BHC	ND	0.10	0.030	1.00	
Delta-BHC	ND	0.10	0.029	1.00	
Endosulfan I	ND	0.10	0.028	1.00	
Endrin Aldehyde	ND	0.10	0.026	1.00	
Endosulfan II	ND	0.10	0.027	1.00	
Endosulfan Sulfate	ND	0.10	0.029	1.00	
Methoxychlor	ND	0.10	0.025	1.00	
Chlordane	ND	1.0	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	50-135	
2,4,5,6-Tetrachloro-m-Xylene	72	50-135	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-121114	14-12-1377-1-A	12/11/14 08:40	Aqueous	GC 44	12/15/14	12/19/14 14:16	141215L17

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.2	0.35	1.00	
4,4'-DDD	2.3	2.2	0.59	1.00	
4,4'-DDE	ND	2.2	0.51	1.00	
4,4'-DDT	3.9	2.2	0.59	1.00	
Alpha Chlordane	ND	2.2	0.53	1.00	
Dieldrin	ND	2.2	0.59	1.00	
Gamma Chlordane	ND	2.2	0.53	1.00	
Toxaphene	ND	27	8.9	1.00	
Endrin	ND	2.2	0.33	1.00	
Gamma-BHC	ND	2.2	0.50	1.00	
Heptachlor	ND	2.2	0.39	1.00	
Heptachlor Epoxide	ND	2.2	0.36	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-150	
2,4,5,6-Tetrachloro-m-Xylene	80	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-121114	14-12-1377-2-A	12/11/14 08:46	Aqueous	GC 44	12/15/14	12/19/14 14:30	141215L17

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.31	1.00	
4,4'-DDD	3.3	1.9	0.52	1.00	
4,4'-DDE	ND	1.9	0.46	1.00	
4,4'-DDT	4.9	1.9	0.53	1.00	
Alpha Chlordane	ND	1.9	0.47	1.00	
Dieldrin	ND	1.9	0.52	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	7.9	1.00	
Endrin	ND	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.44	1.00	
Heptachlor	ND	1.9	0.34	1.00	
Heptachlor Epoxide	ND	1.9	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	70	50-150	
2,4,5,6-Tetrachloro-m-Xylene	64	50-150	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-036-15	N/A	Aqueous	GC 44	12/15/14	12/19/14 14:02	141215L17

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.0	0.33	1.00	
4,4'-DDD	ND	2.0	0.55	1.00	
4,4'-DDE	ND	2.0	0.48	1.00	
4,4'-DDT	ND	2.0	0.55	1.00	
Alpha Chlordane	ND	2.0	0.49	1.00	
Dieldrin	ND	2.0	0.55	1.00	
Gamma Chlordane	ND	2.0	0.49	1.00	
Toxaphene	ND	25	8.2	1.00	
Endrin	ND	2.0	0.31	1.00	
Gamma-BHC	ND	2.0	0.46	1.00	
Heptachlor	ND	2.0	0.36	1.00	
Heptachlor Epoxide	ND	2.0	0.34	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	119	50-150	
2,4,5,6-Tetrachloro-m-Xylene	97	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-529-763	LCS	Aqueous	GC 51	12/15/14	12/16/14 13:16	141215L04
099-12-529-763	LCSD	Aqueous	GC 51	12/15/14	12/16/14 12:47	141215L04

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.3526	71	0.3770	75	50-135	36-149	7	0-25	
Gamma-BHC	0.5000	0.4351	87	0.5036	101	50-135	36-149	15	0-25	
Beta-BHC	0.5000	0.4068	81	0.4097	82	50-135	36-149	1	0-25	
Heptachlor	0.5000	0.5166	103	0.5142	103	50-135	36-149	0	0-25	
Delta-BHC	0.5000	0.4398	88	0.4484	90	50-135	36-149	2	0-25	
Aldrin	0.5000	0.4957	99	0.4909	98	50-135	36-149	1	0-25	
Heptachlor Epoxide	0.5000	0.4779	96	0.4720	94	50-135	36-149	1	0-25	
Endosulfan I	0.5000	0.5183	104	0.5087	102	50-135	36-149	2	0-25	
Dieldrin	0.5000	0.4974	99	0.4955	99	50-135	36-149	0	0-25	
4,4'-DDE	0.5000	0.4530	91	0.4722	94	50-135	36-149	4	0-25	
Endrin	0.5000	0.5181	104	0.5295	106	50-135	36-149	2	0-25	
Endrin Aldehyde	0.5000	0.4444	89	0.4132	83	50-135	36-149	7	0-25	
4,4'-DDD	0.5000	0.4877	98	0.4972	99	50-135	36-149	2	0-25	
Endosulfan II	0.5000	0.4809	96	0.4845	97	50-135	36-149	1	0-25	
4,4'-DDT	0.5000	0.4566	91	0.4635	93	50-135	36-149	1	0-25	
Endosulfan Sulfate	0.5000	0.4769	95	0.4822	96	50-135	36-149	1	0-25	
Methoxychlor	0.5000	0.5172	103	0.5259	105	50-135	36-149	2	0-25	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/13/14
Work Order: 14-12-1377
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-036-15	LCS	Aqueous	GC 44	12/15/14	12/22/14 14:04	141215L17
099-16-036-15	LCSD	Aqueous	GC 44	12/15/14	12/22/14 14:18	141215L17

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	50.00	38.21	76	37.79	76	50-150	33-167	1	0-25	
4,4'-DDD	50.00	64.75	130	65.51	131	50-150	33-167	1	0-25	
4,4'-DDE	50.00	60.80	122	61.76	124	50-150	33-167	2	0-25	
4,4'-DDT	50.00	62.05	124	63.21	126	50-150	33-167	2	0-25	
Alpha Chlordane	50.00	54.09	108	55.01	110	50-150	33-167	2	0-25	
Dieldrin	50.00	65.14	130	65.89	132	50-150	33-167	1	0-25	
Gamma Chlordane	50.00	55.08	110	55.85	112	50-150	33-167	1	0-25	
Endrin	50.00	59.99	120	61.06	122	50-150	33-167	2	0-25	
Gamma-BHC	50.00	59.22	118	60.25	120	50-150	33-167	2	0-25	
Heptachlor	50.00	46.03	92	46.91	94	50-150	33-167	2	0-25	
Heptachlor Epoxide	50.00	59.15	118	60.08	120	50-150	33-167	2	0-25	

Total number of LCS compounds: 11

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 14-12-1377

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8081A	EPA 3510C	421	GC 44	1
EPA 8081A	EPA 3510C	669	GC 51	1

Glossary of Terms and Qualifiers

Work Order: 14-12-1377

Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Chain of Custody Record

CalSciene Environmental Lab
5063 Commercial Circle, Suite H
Concord, CA 94520
Phone: 925-689-9022

Please send analytic results, electronic deliverables and the original chain-of-custody form to:

labresults@weiss.com
mec@weiss.com
sab@weiss.com

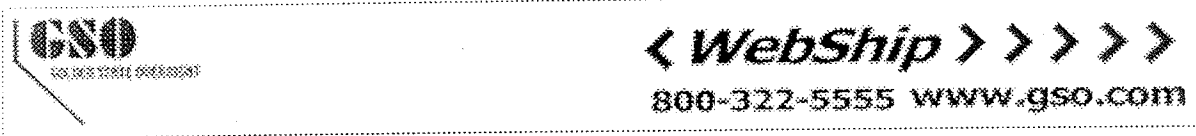
INSTRUCTIONS FOR LAB PERSONNEL:
GeoTracker EDF required? ☐ Yes ☒ No
Equis 4-file EDWEDD required? ☒ Yes ☐ No
Specify analytic/prep method and detection limit in report.
Notify us of any anomalous peaks in GC or other scans.
Call immediately with any questions or problems.

14-12-1377

Client Contact				Project Manager: Scott Bourne				Protocol ID/path: J:\Levin Richmond\03b Sampling				COC Number:							
Weiss Associates				Project ID: 426-2026.01 Task 1.1.3								Page ____ of ____							
2200 Powell Street, Suite 925				Sampled by: MEC/LSAB															
Emeryville, CA 94608				Sample date(s): 12/11/14															
(510) 450-6000				Analysis Turnaround Time:															
(510) 547-5043				Standard															
Job Name: LRT 2014-2015 Annual Storm Water Sampling				(Specify Days or Hours)															
Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804																			
Lab ID	Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	Analyte (Method ID)	Pesticides (EPA 8081A)												
1	SW-3-121114	12/11/14	0840	W	2		✓												
2	SW-4/5/6/7-121114	↓	0846	W	2		✓												
Field Filtered (X):																			
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other																			
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits.																			
Relinquished by: <i>John Ormally</i>	Company: Weiss Associates	Date/Time: 12/12/14 1730	Received by: <i>John Ormally</i>	Company: ECI	Date/Time: 12/12/14 0950														
Relinquished by: <i>John Ormally</i>	Company: ECI	Date/Time: 12/12/14 1730	Received by: <i>John Ormally</i>	Company: ECI	Date/Time: 12/13/14 0950														
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:														

☑ = Samples released to a secured, locked area.

● = Samples received from a secured, locked area



1377

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

Tracking #: 526383285



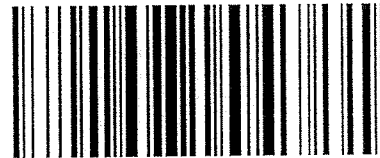
SDS

ORC
GARDEN GROVE

A

COD:
\$0.00

D92845A



31808175

Reference:
TERRA PACIFIC GROUP, CARDNO ERI,WEISS,
SCHNITZER

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Print Date : 12/12/14 15:27 PM

Package 1 of 1

[Send Label To Printer](#)

☒ [Print All](#)

[Edit Shipment](#)

[Finish](#)

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

[Send Label Via Email](#)

[Create Return Label](#)

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.

Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience

WORK ORDER #: 14-12-1377

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Weiss

DATE: 12/13/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 3.2 °C - 0.2 °C (CF) = 3.0 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: [Signature]

CUSTODY SEALS INTACT:

☒ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: [Signature]

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: [Signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☐ _____

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☒ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s
☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: [Signature]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: [Signature]

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by: [Signature]

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-61844-1

Client Project/Site: LRT 2014-2015 Annual Stormwater
Sampling

For:

Weiss Associates

2200 Powell Street

Suite 925

Emeryville, California 94608

Attn: Mr. Scott Bourne



Authorized for release by:

12/24/2014 12:06:03 PM

Micah Smith, Project Manager II

(925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Job ID: 720-61844-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-61844-1

Comments

No additional comments.

Receipt

The samples were received on 12/12/2014 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 4.8° C, 5.1° C and 5.5° C.

Except:

Sample SW-12-121114 (720-61844-5) was requested as an MS/MSD for all analyses, however, an MS/MSD is not used for the analysis of TSS, Specific Conductance or pH. For these analyses we have done this samples as sample duplicate.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 1664A: All of the samples were analyzed as HEM, rather than SGT-HEM, since the samples were all below the reporting limit for HEM and did not require the silica gel treatment.

Method(s) 9040B: All samples were received past the holding time for pH.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: TS1-E-121114

Lab Sample ID: 720-61844-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.60		0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.0028	J	0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	0.35		0.20	0.029	mg/L	5		200.8	Total/NA
Lead	0.0020		0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.060		0.020	0.0095	mg/L	5		200.8	Total/NA
HEM (Oil & Grease)	1.8	J	5.4	0.59	mg/L	1		1664A	Total/NA
Total Suspended Solids	24		3.3	1.7	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.37	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	170		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: SW-3-121114

Lab Sample ID: 720-61844-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	2.7		0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.013		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	3.7		0.20	0.029	mg/L	5		200.8	Total/NA
Nickel	0.0055	J	0.015	0.0020	mg/L	5		200.8	Total/NA
Lead	0.010		0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.17		0.020	0.0095	mg/L	5		200.8	Total/NA
HEM (Oil & Grease)	2.5	J	5.2	0.57	mg/L	1		1664A	Total/NA
Total Suspended Solids	280		10	5.0	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.82	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	3100		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: SW-4/5/6/7-121114

Lab Sample ID: 720-61844-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.48	J	0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.0057		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	0.43		0.20	0.029	mg/L	5		200.8	Total/NA
Lead	0.0019	J	0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.091		0.020	0.0095	mg/L	5		200.8	Total/NA
HEM (Oil & Grease)	1.2	J	5.9	0.64	mg/L	1		1664A	Total/NA
Total Suspended Solids	20		2.0	1.0	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.61	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	540		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: SW-11-121114

Lab Sample ID: 720-61844-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.24	J	0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.0055		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	0.54		0.20	0.029	mg/L	5		200.8	Total/NA
Nickel	0.0056	J	0.015	0.0020	mg/L	5		200.8	Total/NA
Lead	0.0016	J	0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.084		0.020	0.0095	mg/L	5		200.8	Total/NA
HEM (Oil & Grease)	1.2	J	5.4	0.58	mg/L	1		1664A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-11-121114 (Continued)

Lab Sample ID: 720-61844-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	39		2.0	1.0	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.65	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	20000		2.0	2.0	umhos/cm	2		SM 2510B	Total/NA

Client Sample ID: SW-12-121114

Lab Sample ID: 720-61844-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.84		0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.011		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	1.7		0.20	0.029	mg/L	5		200.8	Total/NA
Nickel	0.0060	J	0.015	0.0020	mg/L	5		200.8	Total/NA
Lead	0.010		0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.11		0.020	0.0095	mg/L	5		200.8	Total/NA
HEM (Oil & Grease)	1.3	J	5.1	0.55	mg/L	1		1664A	Total/NA
Total Suspended Solids	36		2.5	1.3	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.62	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	69		1.0	1.0	umhos/cm	1		SM 2510B	Total/NA

Client Sample ID: SHEET-1-121114

Lab Sample ID: 720-61844-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	79		1.3	0.63	mg/L	1		SM 2540D	Total/NA

Client Sample ID: SHEET-2-121114

Lab Sample ID: 720-61844-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	51		1.3	0.63	mg/L	1		SM 2540D	Total/NA

Client Sample ID: SW-11-121114-DUP

Lab Sample ID: 720-61844-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.25	J	0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.0052		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	0.53		0.20	0.029	mg/L	5		200.8	Total/NA
Nickel	0.0060	J	0.015	0.0020	mg/L	5		200.8	Total/NA
Lead	0.0018	J	0.0020	0.00017	mg/L	5		200.8	Total/NA
Zinc	0.087		0.020	0.0095	mg/L	5		200.8	Total/NA
Total Suspended Solids	39		2.5	1.3	mg/L	1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.66	H	0.100	0.100	SU	1		9040B	Total/NA
Specific Conductance	20000		2.0	2.0	umhos/cm	2		SM 2510B	Total/NA

Client Sample ID: TS1-I-121114

Lab Sample ID: 720-61844-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3.2		0.50	0.17	mg/L	5		200.8	Total/NA
Copper	0.0090		0.0050	0.00055	mg/L	5		200.8	Total/NA
Iron	2.2		0.20	0.029	mg/L	5		200.8	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Client Sample ID: TS1-I-121114 (Continued)

Lab Sample ID: 720-61844-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	0.0037	J	0.015	0.0020	mg/L	5			200.8	Total/NA
Lead	0.010		0.0020	0.00017	mg/L	5			200.8	Total/NA
Zinc	0.13		0.020	0.0095	mg/L	5			200.8	Total/NA
HEM (Oil & Grease)	1.0	J	5.6	0.60	mg/L	1			1664A	Total/NA
Total Suspended Solids	120		8.7	4.3	mg/L	1			SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
pH	7.43	H	0.100	0.100	SU	1			9040B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: TS1-E-121114

Lab Sample ID: 720-61844-1

Date Collected: 12/11/14 09:45

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.60		0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:37	5
Copper	0.0028	J	0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:37	5
Iron	0.35		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:37	5
Nickel	ND		0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:37	5
Lead	0.0020		0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:37	5
Zinc	0.060		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:37	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.8	J	5.4	0.59	mg/L		12/16/14 22:05	12/16/14 23:41	1
Total Suspended Solids	24		3.3	1.7	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.37	H	0.100	0.100	SU			12/12/14 10:37	1
Specific Conductance	170		1.0	1.0	umhos/cm			12/17/14 08:35	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-3-121114

Lab Sample ID: 720-61844-2

Date Collected: 12/11/14 08:40

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2.7		0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:40	5
Copper	0.013		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:40	5
Iron	3.7		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:40	5
Nickel	0.0055	J	0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:40	5
Lead	0.010		0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:40	5
Zinc	0.17		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:40	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.5	J	5.2	0.57	mg/L		12/16/14 22:17	12/16/14 23:48	1
Total Suspended Solids	280		10	5.0	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.82	H	0.100	0.100	SU			12/12/14 10:44	1
Specific Conductance	3100		1.0	1.0	umhos/cm			12/17/14 08:35	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-4/5/6/7-121114

Lab Sample ID: 720-61844-3

Date Collected: 12/11/14 08:46

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.48	J	0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:44	5
Copper	0.0057		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:44	5
Iron	0.43		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:44	5
Nickel	ND		0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:44	5
Lead	0.0019	J	0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:44	5
Zinc	0.091		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:44	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.2	J	5.9	0.64	mg/L		12/17/14 20:22	12/17/14 23:07	1
Total Suspended Solids	20		2.0	1.0	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.61	H	0.100	0.100	SU			12/12/14 10:52	1
Specific Conductance	540		1.0	1.0	umhos/cm			12/17/14 08:35	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-11-121114

Lab Sample ID: 720-61844-4

Date Collected: 12/11/14 08:55

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.24	J	0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:48	5
Copper	0.0055		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:48	5
Iron	0.54		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:48	5
Nickel	0.0056	J	0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:48	5
Lead	0.0016	J	0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:48	5
Zinc	0.084		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:48	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.2	J	5.4	0.58	mg/L		12/17/14 20:28	12/17/14 23:11	1
Total Suspended Solids	39		2.0	1.0	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.65	H	0.100	0.100	SU			12/12/14 10:59	1
Specific Conductance	20000		2.0	2.0	umhos/cm			12/17/14 08:35	2

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-12-121114

Lab Sample ID: 720-61844-5

Date Collected: 12/11/14 09:10

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.84		0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:03	5
Copper	0.011		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:03	5
Iron	1.7		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:03	5
Nickel	0.0060	J	0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:03	5
Lead	0.010		0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:03	5
Zinc	0.11		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:03	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.3	J	5.1	0.55	mg/L		12/17/14 20:35	12/17/14 23:15	1
Total Suspended Solids	36		2.5	1.3	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.62	H	0.100	0.100	SU			12/12/14 11:03	1
Specific Conductance	69		1.0	1.0	umhos/cm			12/17/14 08:35	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Client Sample ID: SHEET-1-121114

Lab Sample ID: 720-61844-6

Date Collected: 12/11/14 07:45

Matrix: Water

Date Received: 12/12/14 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	79		1.3	0.63	mg/L			12/16/14 16:16	1

Client Sample Results

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Client Sample ID: SHEET-2-121114

Lab Sample ID: 720-61844-7

Date Collected: 12/11/14 07:40

Matrix: Water

Date Received: 12/12/14 09:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	51		1.3	0.63	mg/L			12/16/14 16:16	1

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-11-121114-DUP

Lab Sample ID: 720-61844-8

Date Collected: 12/11/14 09:00

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.25	J	0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:52	5
Copper	0.0052		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:52	5
Iron	0.53		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:52	5
Nickel	0.0060	J	0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:52	5
Lead	0.0018	J	0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:52	5
Zinc	0.087		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:52	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.3	0.58	mg/L		12/17/14 20:53	12/17/14 23:27	1
Total Suspended Solids	39		2.5	1.3	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.66	H	0.100	0.100	SU			12/12/14 11:27	1
Specific Conductance	20000		2.0	2.0	umhos/cm			12/17/14 08:35	2

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: TS1-I-121114

Lab Sample ID: 720-61844-9

Date Collected: 12/11/14 09:40

Matrix: Water

Date Received: 12/12/14 09:40

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3.2		0.50	0.17	mg/L		12/17/14 10:54	12/17/14 16:55	5
Copper	0.0090		0.0050	0.00055	mg/L		12/17/14 10:54	12/17/14 16:55	5
Iron	2.2		0.20	0.029	mg/L		12/17/14 10:54	12/17/14 16:55	5
Nickel	0.0037	J	0.015	0.0020	mg/L		12/17/14 10:54	12/17/14 16:55	5
Lead	0.010		0.0020	0.00017	mg/L		12/17/14 10:54	12/17/14 16:55	5
Zinc	0.13		0.020	0.0095	mg/L		12/17/14 10:54	12/17/14 16:55	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.0	J	5.6	0.60	mg/L		12/17/14 21:00	12/17/14 23:31	1
Total Suspended Solids	120		8.7	4.3	mg/L			12/16/14 16:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.43	H	0.100	0.100	SU			12/12/14 11:35	1

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-178381/21-A

Matrix: Water

Analysis Batch: 178563

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 178381

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.034	mg/L		12/17/14 10:54	12/17/14 15:51	1
Copper	ND		0.0010	0.00011	mg/L		12/17/14 10:54	12/17/14 15:51	1
Iron	ND		0.040	0.0058	mg/L		12/17/14 10:54	12/17/14 15:51	1
Nickel	ND		0.0030	0.00040	mg/L		12/17/14 10:54	12/17/14 15:51	1
Lead	ND		0.00040	0.000034	mg/L		12/17/14 10:54	12/17/14 15:51	1
Zinc	ND		0.0040	0.0019	mg/L		12/17/14 10:54	12/17/14 15:51	1

Lab Sample ID: LCS 580-178381/22-A

Matrix: Water

Analysis Batch: 178563

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	1.00	0.980		mg/L		98	85 - 115
Copper	0.100	0.0952		mg/L		95	85 - 115
Iron	10.0	9.31		mg/L		93	85 - 115
Nickel	0.100	0.0926		mg/L		93	85 - 115
Lead	0.100	0.0901		mg/L		90	85 - 115
Zinc	0.100	0.0926		mg/L		93	85 - 115

Lab Sample ID: LCSD 580-178381/23-A

Matrix: Water

Analysis Batch: 178563

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	1.00	0.984		mg/L		98	85 - 115	0	20
Copper	0.100	0.0939		mg/L		94	85 - 115	1	20
Iron	10.0	9.47		mg/L		95	85 - 115	2	20
Nickel	0.100	0.0922		mg/L		92	85 - 115	0	20
Lead	0.100	0.0892		mg/L		89	85 - 115	1	20
Zinc	0.100	0.0917		mg/L		92	85 - 115	1	20

Lab Sample ID: 720-61844-5 MS

Matrix: Water

Analysis Batch: 178563

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.84		1.00	2.00		mg/L		116	70 - 130
Copper	0.011		0.100	0.108		mg/L		97	70 - 130
Iron	1.7		10.0	11.7		mg/L		100	70 - 130
Nickel	0.0060	J	0.100	0.103		mg/L		97	70 - 130
Lead	0.010		0.100	0.107		mg/L		96	70 - 130
Zinc	0.11		0.100	0.200		mg/L		90	70 - 130

Lab Sample ID: 720-61844-5 MSD

Matrix: Water

Analysis Batch: 178563

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.84		1.00	2.07		mg/L		123	70 - 130	4	20

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 720-61844-5 MSD

Matrix: Water

Analysis Batch: 178563

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.011		0.100	0.108		mg/L		97	70 - 130	0	20
Iron	1.7		10.0	11.8		mg/L		101	70 - 130	1	20
Nickel	0.0060	J	0.100	0.104		mg/L		98	70 - 130	0	20
Lead	0.010		0.100	0.106		mg/L		95	70 - 130	1	20
Zinc	0.11		0.100	0.203		mg/L		93	70 - 130	1	20

Lab Sample ID: 720-61844-5 DU

Matrix: Water

Analysis Batch: 178563

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 178381

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	0.84		0.827		mg/L		1	20
Copper	0.011		0.0105		mg/L		1	20
Iron	1.7		1.69		mg/L		1	20
Nickel	0.0060	J	0.00611	J	mg/L		1	20
Lead	0.010		0.0105		mg/L		0.2	20
Zinc	0.11		0.108		mg/L		2	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-268840/1-A

Matrix: Water

Analysis Batch: 268841

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 268840

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	0.54	mg/L		12/16/14 20:10	12/16/14 22:35	1

Lab Sample ID: LCS 500-268840/2-A

Matrix: Water

Analysis Batch: 268841

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 268840

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	37.0		mg/L		93	78 - 114

Lab Sample ID: 720-61844-1 MS

Matrix: Water

Analysis Batch: 268841

Client Sample ID: TS1-E-121114

Prep Type: Total/NA

Prep Batch: 268840

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	1.8	J	43.1	37.4		mg/L		82	78 - 114

Lab Sample ID: MB 500-269007/1-A

Matrix: Water

Analysis Batch: 269008

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 269007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	0.54	mg/L		12/17/14 20:10	12/17/14 23:00	1

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 500-269007/2-A

Matrix: Water

Analysis Batch: 269008

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 269007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	39.1		mg/L		98	78 - 114

Lab Sample ID: 720-61844-5 MS

Matrix: Water

Analysis Batch: 269008

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 269007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	1.3	J	40.7	35.4		mg/L		84	78 - 114

Lab Sample ID: 720-61844-5 MSD

Matrix: Water

Analysis Batch: 269008

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Prep Batch: 269007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	1.3	J	40.6	37.5		mg/L		89	78 - 114	6	18

Method: 9040B - pH

Lab Sample ID: LCS 720-172556/1

Matrix: Water

Analysis Batch: 172556

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.000		SU		100	99 - 101

Lab Sample ID: 720-61844-5 DU

Matrix: Water

Analysis Batch: 172556

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.62	H	7.550	H	SU		0.9	5

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-225216/3

Matrix: Water

Analysis Batch: 225216

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			12/17/14 08:35	1

Lab Sample ID: LCS 440-225216/4

Matrix: Water

Analysis Batch: 225216

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	765	792		umhos/cm		104	90 - 110

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Method: SM 2510B - Conductivity, Specific Conductance (Continued)

Lab Sample ID: 720-61844-5 DU

Matrix: Water

Analysis Batch: 225216

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Specific Conductance	69		70.8		umhos/cm		3	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-225094/2

Matrix: Water

Analysis Batch: 225094

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			12/16/14 16:16	1

Lab Sample ID: LCS 440-225094/1

Matrix: Water

Analysis Batch: 225094

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	1030		mg/L		103	85 - 115

Lab Sample ID: 720-61844-5 DU

Matrix: Water

Analysis Batch: 225094

Client Sample ID: SW-12-121114

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Suspended Solids	36		35.8		mg/L		0.7	10

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Metals

Prep Batch: 178381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	200.8	
720-61844-2	SW-3-121114	Total/NA	Water	200.8	
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	200.8	
720-61844-4	SW-11-121114	Total/NA	Water	200.8	
720-61844-5	SW-12-121114	Total/NA	Water	200.8	
720-61844-5 DU	SW-12-121114	Total/NA	Water	200.8	
720-61844-5 MS	SW-12-121114	Total/NA	Water	200.8	
720-61844-5 MSD	SW-12-121114	Total/NA	Water	200.8	
720-61844-8	SW-11-121114-DUP	Total/NA	Water	200.8	
720-61844-9	TS1-I-121114	Total/NA	Water	200.8	
LCS 580-178381/22-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-178381/23-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-178381/21-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 178563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	200.8	178381
720-61844-2	SW-3-121114	Total/NA	Water	200.8	178381
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	200.8	178381
720-61844-4	SW-11-121114	Total/NA	Water	200.8	178381
720-61844-5	SW-12-121114	Total/NA	Water	200.8	178381
720-61844-5 DU	SW-12-121114	Total/NA	Water	200.8	178381
720-61844-5 MS	SW-12-121114	Total/NA	Water	200.8	178381
720-61844-5 MSD	SW-12-121114	Total/NA	Water	200.8	178381
720-61844-8	SW-11-121114-DUP	Total/NA	Water	200.8	178381
720-61844-9	TS1-I-121114	Total/NA	Water	200.8	178381
LCS 580-178381/22-A	Lab Control Sample	Total/NA	Water	200.8	178381
LCSD 580-178381/23-A	Lab Control Sample Dup	Total/NA	Water	200.8	178381
MB 580-178381/21-A	Method Blank	Total/NA	Water	200.8	178381

General Chemistry

Analysis Batch: 172556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	9040B	
720-61844-2	SW-3-121114	Total/NA	Water	9040B	
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	9040B	
720-61844-4	SW-11-121114	Total/NA	Water	9040B	
720-61844-5	SW-12-121114	Total/NA	Water	9040B	
720-61844-5 DU	SW-12-121114	Total/NA	Water	9040B	
720-61844-8	SW-11-121114-DUP	Total/NA	Water	9040B	
720-61844-9	TS1-I-121114	Total/NA	Water	9040B	
LCS 720-172556/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 225094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	SM 2540D	
720-61844-2	SW-3-121114	Total/NA	Water	SM 2540D	
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	SM 2540D	
720-61844-4	SW-11-121114	Total/NA	Water	SM 2540D	

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

General Chemistry (Continued)

Analysis Batch: 225094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-5	SW-12-121114	Total/NA	Water	SM 2540D	
720-61844-5 DU	SW-12-121114	Total/NA	Water	SM 2540D	
720-61844-6	SHEET-1-121114	Total/NA	Water	SM 2540D	
720-61844-7	SHEET-2-121114	Total/NA	Water	SM 2540D	
720-61844-8	SW-11-121114-DUP	Total/NA	Water	SM 2540D	
720-61844-9	TS1-I-121114	Total/NA	Water	SM 2540D	
LCS 440-225094/1	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-225094/2	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 225216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	SM 2510B	
720-61844-2	SW-3-121114	Total/NA	Water	SM 2510B	
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	SM 2510B	
720-61844-4	SW-11-121114	Total/NA	Water	SM 2510B	
720-61844-5	SW-12-121114	Total/NA	Water	SM 2510B	
720-61844-5 DU	SW-12-121114	Total/NA	Water	SM 2510B	
720-61844-8	SW-11-121114-DUP	Total/NA	Water	SM 2510B	
LCS 440-225216/4	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 440-225216/3	Method Blank	Total/NA	Water	SM 2510B	

Prep Batch: 268840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	1664A	
720-61844-1 MS	TS1-E-121114	Total/NA	Water	1664A	
720-61844-2	SW-3-121114	Total/NA	Water	1664A	
LCS 500-268840/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-268840/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 268841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-1	TS1-E-121114	Total/NA	Water	1664A	268840
720-61844-1 MS	TS1-E-121114	Total/NA	Water	1664A	268840
720-61844-2	SW-3-121114	Total/NA	Water	1664A	268840
LCS 500-268840/2-A	Lab Control Sample	Total/NA	Water	1664A	268840
MB 500-268840/1-A	Method Blank	Total/NA	Water	1664A	268840

Prep Batch: 269007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	1664A	
720-61844-4	SW-11-121114	Total/NA	Water	1664A	
720-61844-5	SW-12-121114	Total/NA	Water	1664A	
720-61844-5 MS	SW-12-121114	Total/NA	Water	1664A	
720-61844-5 MSD	SW-12-121114	Total/NA	Water	1664A	
720-61844-8	SW-11-121114-DUP	Total/NA	Water	1664A	
720-61844-9	TS1-I-121114	Total/NA	Water	1664A	
LCS 500-269007/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-269007/1-A	Method Blank	Total/NA	Water	1664A	

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

General Chemistry (Continued)

Analysis Batch: 269008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-61844-3	SW-4/5/6/7-121114	Total/NA	Water	1664A	269007
720-61844-4	SW-11-121114	Total/NA	Water	1664A	269007
720-61844-5	SW-12-121114	Total/NA	Water	1664A	269007
720-61844-5 MS	SW-12-121114	Total/NA	Water	1664A	269007
720-61844-5 MSD	SW-12-121114	Total/NA	Water	1664A	269007
720-61844-8	SW-11-121114-DUP	Total/NA	Water	1664A	269007
720-61844-9	TS1-I-121114	Total/NA	Water	1664A	269007
LCS 500-269007/2-A	Lab Control Sample	Total/NA	Water	1664A	269007
MB 500-269007/1-A	Method Blank	Total/NA	Water	1664A	269007

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: TS1-E-121114

Date Collected: 12/11/14 09:45

Date Received: 12/12/14 09:40

Lab Sample ID: 720-61844-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:37	FCW	TAL SEA
Total/NA	Prep	1664A			268840	12/16/14 22:05	SJS	TAL CHI
Total/NA	Analysis	1664A		1	268841	12/16/14 23:41	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 10:37	MJK	TAL PLS
Total/NA	Analysis	SM 2510B		1	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SW-3-121114

Date Collected: 12/11/14 08:40

Date Received: 12/12/14 09:40

Lab Sample ID: 720-61844-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:40	FCW	TAL SEA
Total/NA	Prep	1664A			268840	12/16/14 22:17	SJS	TAL CHI
Total/NA	Analysis	1664A		1	268841	12/16/14 23:48	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 10:44	MJK	TAL PLS
Total/NA	Analysis	SM 2510B		1	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SW-4/5/6/7-121114

Date Collected: 12/11/14 08:46

Date Received: 12/12/14 09:40

Lab Sample ID: 720-61844-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:44	FCW	TAL SEA
Total/NA	Prep	1664A			269007	12/17/14 20:22	SJS	TAL CHI
Total/NA	Analysis	1664A		1	269008	12/17/14 23:07	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 10:52	MJK	TAL PLS
Total/NA	Analysis	SM 2510B		1	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SW-11-121114

Date Collected: 12/11/14 08:55

Date Received: 12/12/14 09:40

Lab Sample ID: 720-61844-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:48	FCW	TAL SEA
Total/NA	Prep	1664A			269007	12/17/14 20:28	SJS	TAL CHI

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-11-121114

Lab Sample ID: 720-61844-4

Date Collected: 12/11/14 08:55

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1664A		1	269008	12/17/14 23:11	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 10:59	MJK	TAL PLS
Total/NA	Analysis	SM 2510B		2	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SW-12-121114

Lab Sample ID: 720-61844-5

Date Collected: 12/11/14 09:10

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:03	FCW	TAL SEA
Total/NA	Prep	1664A			269007	12/17/14 20:35	SJS	TAL CHI
Total/NA	Analysis	1664A		1	269008	12/17/14 23:15	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 11:03	MJK	TAL PLS
Total/NA	Analysis	SM 2510B		1	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SHEET-1-121114

Lab Sample ID: 720-61844-6

Date Collected: 12/11/14 07:45

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SHEET-2-121114

Lab Sample ID: 720-61844-7

Date Collected: 12/11/14 07:40

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: SW-11-121114-DUP

Lab Sample ID: 720-61844-8

Date Collected: 12/11/14 09:00

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:52	FCW	TAL SEA
Total/NA	Prep	1664A			269007	12/17/14 20:53	SJS	TAL CHI
Total/NA	Analysis	1664A		1	269008	12/17/14 23:27	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 11:27	MJK	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Client Sample ID: SW-11-121114-DUP

Lab Sample ID: 720-61844-8

Date Collected: 12/11/14 09:00

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2510B		2	225216	12/17/14 08:35	XL	TAL IRV
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Client Sample ID: TS1-I-121114

Lab Sample ID: 720-61844-9

Date Collected: 12/11/14 09:40

Matrix: Water

Date Received: 12/12/14 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			178381	12/17/14 10:54	PAB	TAL SEA
Total/NA	Analysis	200.8		5	178563	12/17/14 16:55	FCW	TAL SEA
Total/NA	Prep	1664A			269007	12/17/14 21:00	SJS	TAL CHI
Total/NA	Analysis	1664A		1	269008	12/17/14 23:31	SJS	TAL CHI
Total/NA	Analysis	9040B		1	172556	12/12/14 11:35	MJK	TAL PLS
Total/NA	Analysis	SM 2540D		1	225094	12/16/14 16:16	NTN	TAL IRV

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

Certification Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-61844-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16
Analysis Method	Prep Method	Matrix	Analyte	

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-15
California	State Program	9	2903	04-30-15
Georgia	State Program	4	N/A	04-30-15
Georgia	State Program	4	939	04-30-15
Hawaii	State Program	9	N/A	04-30-15
Illinois	NELAP	5	100201	04-30-15
Indiana	State Program	5	C-IL-02	04-30-15
Iowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	01-31-15 *
Kentucky (UST)	State Program	4	66	04-30-15
Kentucky (WW)	State Program	4	KY90023	12-31-14 *
Massachusetts	State Program	1	M-IL035	06-30-15
Mississippi	State Program	4	N/A	04-30-15
New York	NELAP	2	IL00035	03-31-15
North Carolina (WW/SW)	State Program	4	291	12-31-14 *
North Dakota	State Program	8	R-194	04-30-15
Oklahoma	State Program	6	8908	08-31-15
South Carolina	State Program	4	77001	04-30-15
USDA	Federal		P330-12-00038	02-06-15
Wisconsin	State Program	5	999580010	08-31-15 *
Wyoming	State Program	8	8TMS-Q	04-30-15

Laboratory: TestAmerica Irvine

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2706	06-30-16

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

* Certification renewal pending - certification considered valid.

TestAmerica Pleasanton

Method Summary

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL CHI
9040B	pH	SW846	TAL PLS
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Weiss Associates

TestAmerica Job ID: 720-61844-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-61844-1	TS1-E-121114	Water	12/11/14 09:45	12/12/14 09:40
720-61844-2	SW-3-121114	Water	12/11/14 08:40	12/12/14 09:40
720-61844-3	SW-4/5/6/7-121114	Water	12/11/14 08:46	12/12/14 09:40
720-61844-4	SW-11-121114	Water	12/11/14 08:55	12/12/14 09:40
720-61844-5	SW-12-121114	Water	12/11/14 09:10	12/12/14 09:40
720-61844-6	SHEET-1-121114	Water	12/11/14 07:45	12/12/14 09:40
720-61844-7	SHEET-2-121114	Water	12/11/14 07:40	12/12/14 09:40
720-61844-8	SW-11-121114-DUP	Water	12/11/14 09:00	12/12/14 09:40
720-61844-9	TS1-I-121114	Water	12/11/14 09:40	12/12/14 09:40

TestAmerica Pleasanton

Chain of Custody Record

Please send analytic results, electronic deliverables and the original chain-of-custody form to:
labresults@weiss.com
mec@weiss.com
sat@weiss.com

INSTRUCTIONS FOR LAB PERSONNEL:

GeoTracker EDF required? ☐ Yes ☒ No

Equis 4-file EDWEDD required? ☒ Yes ☐ No

Specify analytical/prep method and detection limit in report.

Notify us of any anomalous peaks in GC or other scans

Call immediately with any questions or problems

1220-161844

158180

TestAmerica
1220 Quarry Lane
Pleasanton, CA 94566
Phone: 925-484-1919 ext.137

Client Contact

Project Manager: Scott Bourne
Project ID: 426-2026.01 Task 1.1.3
Sampled by: NEC/SAH
Sample date(s): 12/14
Analysis Turnaround Time:
Standard

Protocol ID/path: J Ulevn Richmond03b, Sampling

Analyte (Method ID):
pH (EPA 9040B)
Total Suspended Solids (SM 2540D)
Oil & Grease (EPA 1664A SGT-HEM)
Total Metals- Al, Cu, Fe, Ni, Pb, Zn (EPA 200.8 ICP-MS)
Specific Conductance SM 2510B

COC Number:
Page ____ of ____
SDG number: ____
Sample Specific Notes:

Lab ID	Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	Field Filtered (X):	1	1	1,2	1,4	1	1	1	1	1	1	1	1	1	1
TS1-E-12114		12/11/14	0945	W	5															
SW-3-12114			0940	W	5															
SW-4/5/6/7-12114			0946	W	5															
SW-11-12114			0955	W	5															
SW-12-12114			0910	W	812															
SHEET-1-12114			0945	W	1															
SHEET-2-12114			0940	W	1															
SW-11-12114-dcp			0900	W	5															



720-61844 Chain of Custody

Special Instructions: OOC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).

5.1/4.8/5.5°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

☐ - Samples released to a secured, locked area.

● - Samples received from a secured, locked area

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61844-1

Login Number: 61844

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61844-1

Login Number: 61844

List Number: 3

Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago

List Creation: 12/16/14 01:10 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61844-1

Login Number: 61844

List Number: 4

Creator: Salas, Margarita

List Source: TestAmerica Irvine

List Creation: 12/16/14 12:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61844-1

Login Number: 61844

List Number: 5

Creator: Freitag, Kevin R

List Source: TestAmerica Irvine

List Creation: 12/17/14 09:41 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-61844-1

Login Number: 61844

List Number: 2

Creator: Luna, Francisco J

List Source: TestAmerica Seattle

List Creation: 12/16/14 10:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	10.0c/13.9 IR2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**WORK ORDER NUMBER: 14-12-0426***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Weiss Associates**Client Project Name:** LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3**Attention:** Scott Bourne
2200 Powell Street
Suite 925
Emeryville, CA 94608-1879

A handwritten signature in black ink, reading "Virendra R. Patel", enclosed in an oval.

Approved for release on 12/22/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3
 Work Order Number: 14-12-0426

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Work Order Narrative

Work Order: 14-12-0426Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/04/14. They were assigned to Work Order 14-12-0426.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Sample Summary

Client: Weiss Associates	Work Order: 14-12-0426
2200 Powell Street, Suite 925	Project Name: LRT 2014-2015 Annual Storm Water Sampling /
Emeryville, CA 94608-1879	426-2026.01 Task 1.1.3
	PO Number:
	Date/Time Received: 12/04/14 10:40
	Number of Containers: 6

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SW-3-120214	14-12-0426-1	12/02/14 11:40	2	Aqueous
SW-3-120214-dup	14-12-0426-2	12/02/14 11:45	2	Aqueous
SW-4/5/6/7-120214	14-12-0426-3	12/02/14 11:30	2	Aqueous

Detections Summary

Client: Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Work Order: 14-12-0426
Project Name: LRT 2014-2015 Annual Storm Water Sampling /
426-2026.01 Task 1.1.3
Received: 12/04/14

Attn: Scott Bourne

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
SW-3-120214 (14-12-0426-1)						
4,4'-DDD	2.8		2.0	ng/L	EPA 8081A	EPA 3510C
4,4'-DDE	14		2.0	ng/L	EPA 8081A	EPA 3510C
4,4'-DDT	19		2.0	ng/L	EPA 8081A	EPA 3510C
SW-3-120214-dup (14-12-0426-2)						
4,4'-DDD	2.5		1.9	ng/L	EPA 8081A	EPA 3510C
4,4'-DDE	14		1.9	ng/L	EPA 8081A	EPA 3510C
4,4'-DDT	19		1.9	ng/L	EPA 8081A	EPA 3510C
SW-4/5/6/7-120214 (14-12-0426-3)						
4,4'-DDT	3.5		1.9	ng/L	EPA 8081A	EPA 3510C

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-120214	14-12-0426-1-A	12/02/14 11:40	Aqueous	GC 51	12/08/14	12/09/14 17:11	141208L13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.097	0.027	1.00	
Beta-BHC	ND	0.097	0.029	1.00	
Delta-BHC	ND	0.097	0.028	1.00	
Endosulfan I	ND	0.097	0.027	1.00	
Endrin Aldehyde	ND	0.097	0.026	1.00	
Endosulfan II	ND	0.097	0.026	1.00	
Endosulfan Sulfate	ND	0.097	0.028	1.00	
Methoxychlor	ND	0.097	0.024	1.00	
Chlordane	ND	0.97	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-135	
2,4,5,6-Tetrachloro-m-Xylene	92	50-135	

SW-3-120214-dup	14-12-0426-2-A	12/02/14 11:45	Aqueous	GC 51	12/08/14	12/09/14 17:25	141208L13
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.097	0.027	1.00	
Beta-BHC	ND	0.097	0.029	1.00	
Delta-BHC	ND	0.097	0.028	1.00	
Endosulfan I	ND	0.097	0.027	1.00	
Endrin Aldehyde	ND	0.097	0.026	1.00	
Endosulfan II	ND	0.097	0.026	1.00	
Endosulfan Sulfate	ND	0.097	0.028	1.00	
Methoxychlor	ND	0.097	0.024	1.00	
Chlordane	ND	0.97	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-135	
2,4,5,6-Tetrachloro-m-Xylene	94	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-120214	14-12-0426-3-A	12/02/14 11:30	Aqueous	GC 51	12/08/14	12/09/14 17:40	141208L13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.096	0.027	1.00	
Beta-BHC	ND	0.096	0.029	1.00	
Delta-BHC	ND	0.096	0.027	1.00	
Endosulfan I	ND	0.096	0.027	1.00	
Endrin Aldehyde	ND	0.096	0.025	1.00	
Endosulfan II	ND	0.096	0.026	1.00	
Endosulfan Sulfate	ND	0.096	0.028	1.00	
Methoxychlor	ND	0.096	0.024	1.00	
Chlordane	ND	0.96	0.32	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	50-135	
2,4,5,6-Tetrachloro-m-Xylene	88	50-135	

Method Blank	099-12-529-762	N/A	Aqueous	GC 51	12/08/14	12/09/14 16:01	141208L13
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Alpha-BHC	ND	0.10	0.028	1.00	
Beta-BHC	ND	0.10	0.030	1.00	
Delta-BHC	ND	0.10	0.029	1.00	
Endosulfan I	ND	0.10	0.028	1.00	
Endrin Aldehyde	ND	0.10	0.026	1.00	
Endosulfan II	ND	0.10	0.027	1.00	
Endosulfan Sulfate	ND	0.10	0.029	1.00	
Methoxychlor	ND	0.10	0.025	1.00	
Chlordane	ND	1.0	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-135	
2,4,5,6-Tetrachloro-m-Xylene	94	50-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-120214	14-12-0426-1-B	12/02/14 11:40	Aqueous	GC 44	12/09/14	12/18/14 06:50	141209L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.0	0.33	1.00	
4,4'-DDD	2.8	2.0	0.55	1.00	
4,4'-DDE	14	2.0	0.48	1.00	
4,4'-DDT	19	2.0	0.55	1.00	
Alpha Chlordane	ND	2.0	0.49	1.00	
Dieldrin	ND	2.0	0.55	1.00	
Gamma Chlordane	ND	2.0	0.49	1.00	
Toxaphene	ND	25	8.2	1.00	
Endrin	ND	2.0	0.31	1.00	
Gamma-BHC	ND	2.0	0.46	1.00	
Heptachlor	ND	2.0	0.36	1.00	
Heptachlor Epoxide	ND	2.0	0.34	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-150	
2,4,5,6-Tetrachloro-m-Xylene	78	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-3-120214-dup	14-12-0426-2-B	12/02/14 11:45	Aqueous	GC 44	12/09/14	12/18/14 07:04	141209L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.31	1.00	
4,4'-DDD	2.5	1.9	0.53	1.00	
4,4'-DDE	14	1.9	0.46	1.00	
4,4'-DDT	19	1.9	0.53	1.00	
Alpha Chlordane	ND	1.9	0.47	1.00	
Dieldrin	ND	1.9	0.53	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	7.9	1.00	
Endrin	ND	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.44	1.00	
Heptachlor	ND	1.9	0.35	1.00	
Heptachlor Epoxide	ND	1.9	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	50-150	
2,4,5,6-Tetrachloro-m-Xylene	95	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SW-4/5/6/7-120214	14-12-0426-3-B	12/02/14 11:30	Aqueous	GC 44	12/09/14	12/18/14 07:18	141209L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.32	1.00	
4,4'-DDD	ND	1.9	0.53	1.00	
4,4'-DDE	ND	1.9	0.46	1.00	
4,4'-DDT	3.5	1.9	0.54	1.00	
Alpha Chlordane	ND	1.9	0.48	1.00	
Dieldrin	ND	1.9	0.53	1.00	
Gamma Chlordane	ND	1.9	0.47	1.00	
Toxaphene	ND	24	8.0	1.00	
Endrin	ND	1.9	0.30	1.00	
Gamma-BHC	ND	1.9	0.45	1.00	
Heptachlor	ND	1.9	0.35	1.00	
Heptachlor Epoxide	ND	1.9	0.33	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	50-150	
2,4,5,6-Tetrachloro-m-Xylene	98	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A
Units: ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-036-14	N/A	Aqueous	GC 44	12/09/14	12/17/14 22:31	141209L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.0	0.33	1.00	
4,4'-DDD	ND	2.0	0.55	1.00	
4,4'-DDE	ND	2.0	0.48	1.00	
4,4'-DDT	ND	2.0	0.55	1.00	
Alpha Chlordane	ND	2.0	0.49	1.00	
Dieldrin	ND	2.0	0.55	1.00	
Gamma Chlordane	ND	2.0	0.49	1.00	
Toxaphene	ND	25	8.2	1.00	
Endrin	ND	2.0	0.31	1.00	
Gamma-BHC	ND	2.0	0.46	1.00	
Heptachlor	ND	2.0	0.36	1.00	
Heptachlor Epoxide	ND	2.0	0.34	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	50-150	
2,4,5,6-Tetrachloro-m-Xylene	89	50-150	



 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-529-762	LCS	Aqueous	GC 51	12/08/14	12/09/14 16:16	141208L13				
099-12-529-762	LCSD	Aqueous	GC 51	12/08/14	12/09/14 16:42	141208L13				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.4071	81	0.3930	79	50-135	36-149	4	0-25	
Gamma-BHC	0.5000	0.4210	84	0.4183	84	50-135	36-149	1	0-25	
Beta-BHC	0.5000	0.3133	63	0.3111	62	50-135	36-149	1	0-25	
Heptachlor	0.5000	0.4299	86	0.4335	87	50-135	36-149	1	0-25	
Delta-BHC	0.5000	0.3584	72	0.3589	72	50-135	36-149	0	0-25	
Aldrin	0.5000	0.4051	81	0.4080	82	50-135	36-149	1	0-25	
Heptachlor Epoxide	0.5000	0.3995	80	0.4019	80	50-135	36-149	1	0-25	
Endosulfan I	0.5000	0.4163	83	0.4111	82	50-135	36-149	1	0-25	
Dieldrin	0.5000	0.4232	85	0.4168	83	50-135	36-149	2	0-25	
4,4'-DDE	0.5000	0.4104	82	0.4114	82	50-135	36-149	0	0-25	
Endrin	0.5000	0.4447	89	0.4512	90	50-135	36-149	1	0-25	
Endrin Aldehyde	0.5000	0.4173	83	0.4210	84	50-135	36-149	1	0-25	
4,4'-DDD	0.5000	0.4124	82	0.4144	83	50-135	36-149	0	0-25	
Endosulfan II	0.5000	0.4110	82	0.4115	82	50-135	36-149	0	0-25	
4,4'-DDT	0.5000	0.4232	85	0.4320	86	50-135	36-149	2	0-25	
Endosulfan Sulfate	0.5000	0.4081	82	0.4170	83	50-135	36-149	2	0-25	
Methoxychlor	0.5000	0.4331	87	0.4406	88	50-135	36-149	2	0-25	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608-1879

Date Received: 12/04/14
Work Order: 14-12-0426
Preparation: EPA 3510C
Method: EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-036-14	LCS	Aqueous		GC 44	12/09/14	12/17/14 22:03	141209L05			
099-16-036-14	LCSD	Aqueous		GC 44	12/09/14	12/17/14 22:17	141209L05			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	50.00	46.36	93	50.88	102	50-150	33-167	9	0-25	
4,4'-DDD	50.00	45.69	91	51.91	104	50-150	33-167	13	0-25	
4,4'-DDE	50.00	45.52	91	51.41	103	50-150	33-167	12	0-25	
4,4'-DDT	50.00	45.18	90	51.34	103	50-150	33-167	13	0-25	
Alpha Chlordane	50.00	44.22	88	50.07	100	50-150	33-167	12	0-25	
Dieldrin	50.00	46.77	94	52.80	106	50-150	33-167	12	0-25	
Gamma Chlordane	50.00	45.25	90	51.17	102	50-150	33-167	12	0-25	
Endrin	50.00	45.50	91	52.09	104	50-150	33-167	14	0-25	
Gamma-BHC	50.00	47.51	95	52.28	105	50-150	33-167	10	0-25	
Heptachlor	50.00	50.34	101	54.16	108	50-150	33-167	7	0-25	
Heptachlor Epoxide	50.00	44.63	89	50.22	100	50-150	33-167	12	0-25	

Total number of LCS compounds: 11

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 14-12-0426

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8081A	EPA 3510C	421	GC 44	1
EPA 8081A	EPA 3510C	669	GC 51	1


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Glossary of Terms and Qualifiers

Work Order: 14-12-0426

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Chain of Custody Record

Please send analytic results, electronic deliverables and the original chain-of-custody form to:
 CalSciene Environmental Lab
 5063 Commercial Circle, Suite H
 Concord, CA 94520
 Phone: 925-689-9022
 labresults@weiss.com
 mec@weiss.com
 sab@weiss.com

INSTRUCTIONS FOR LAB PERSONNEL:

GeoTracker EDF required? ☐ Yes ☒ No
 Equis 4-file EDWEDD required? ☒ Yes ☐ No
 Specify analytic/prep method and detection limit in report.
 Notify us of any anomalous peaks in GC or other scans.
 Call immediately with any questions or problems.

14-12-0426

Client Contact		Project Manager: Scott Bourne		Protocol ID/path: JLevin Richmond03b Sampling		COC Number:	
Weiss Associates		Project ID: 426-2026.01 Task 1.1.3					
2200 Powell Street, Suite 925		Sampled by: M Cunningham				Page ____ of ____	
Emeryville, CA 94608		Sample date(s): 12/2/14				SDG number:	
(510) 450-6000 Phone		Analysis Turnaround Time:					
(510) 547-5043 FAX		Standard					
Job Name: LRT 2014-2015 Annual Storm Water Sampling		(Specify Days or Hours)					
Levin Richmond Terminal, Address: 402 Wright Avenue, Richmond, CA 94804							
Lab ID	Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	Analyte (Method ID)	Pesticides (EPA 8081A)
1	SW-3-120214	12/2/14	1140	W	2		✓
2	SW-3-120214-dep	↓	1145	↓	2		✓
3	SW-4/5/6/7-120214	↓	1130	↓	2		✓
Field Filtered (X):							
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other							
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits.							

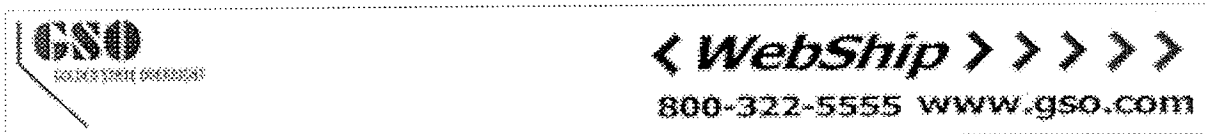
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
M Cunningham	Weiss	12/3/14 1235	To Orinvalley ECI	ECI	12/3/14 1235
To Orinvalley TO GSO	ECI	12/3/14 1730			

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
To Orinvalley TO GSO	ECI	12/3/14 1730			

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

☒ = Samples released to a secured, locked area.

• = Samples received from a secured, locked area



042C

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
\$0.00

Reference:
WEISS, PAC ECORISK,

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 526296005



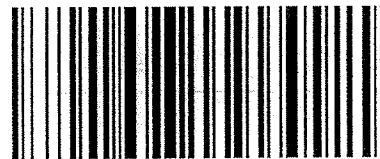
NPS

ORC

GARDEN GROVE

A

D92845A



31443783

Print Date : 12/03/14 16:16 PM

Package 1 of 1

[Send Label To Printer](#)

☒ [Print All](#)

[Edit Shipment](#)

[Finish](#)

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

[Send Label Via Email](#)

[Create Return Label](#)

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.

Our liability for loss or damage to any package is limited to your actual damages or \$100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is \$500. For other shipments the highest declared value is \$10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is \$500. Items of "extraordinary value" include, but are not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience

WORK ORDER #: 14-12-0426

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Weiss

DATE: 12/04/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Temperature 2.1°C - 0.2°C (CF) = 1.9°C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by:)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 15

CUSTODY SEALS INTACT:

☒ Cooler ☐ No (Not Intact) ☐ Not Present ☐ N/A Checked by: 15

☐ Sample ☐ No (Not Intact) ☒ Not Present Checked by: 592

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------------------	-------------------------------------	--------------------------	--------------------------

Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------	--------------------------

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
---	-------------------------------------	--------------------------	--------------------------

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
---	--------------------------	--------------------------	-------------------------------------

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve () ☐ EnCores® ☐ TerraCores® ☐

Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznna ☐ 100PJ ☐ 100PJna₂ ☐ ☐ ☐

Air: ☐ Tedlar® ☐ Canister Other: ☐ Trip Blank Lot#: Labeled/Checked by: 592

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by:

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂+NaOH f: Filtered Scanned by:

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-62889-1

Client Project/Site: LRT 2014-2015 Annual Stormwater
Sampling

For:

Weiss Associates

2200 Powell Street

Suite 925

Emeryville, California 94608

Attn: Mr. Scott Bourne



Authorized for release by:

2/24/2015 3:33:47 PM

Micah Smith, Project Manager II

(925)484-1919

micah.smith@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Weiss Associates

TestAmerica Job ID: 720-62889-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Job ID: 720-62889-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-62889-1

Comments

No additional comments.

Receipt

The samples were received on 2/9/2015 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7° C.

Except:

All samples were received outside of holding time for pH.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 1664A: The method blank (MB), laboratory control standard (LCS), and matrix spike and matrix spike duplicate (MS/MSD) analyzed in batch 275542 were in control, but were analyzed as HEM, rather than SGT-HEM, since the sample was a non-detect for HEM and did not require the silica gel treatment.

No other analytical or quality issues were noted, other than those listed above or described in the Definitions/Glossary page.

Detection Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Client Sample ID: TS1-E-020615

Lab Sample ID: 720-62889-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	0.23		0.10	0.10	mg/L		1		200.8	Total/NA
Copper	0.0023		0.0020	0.00060	mg/L		1		200.8	Total/NA
Iron	0.18		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0016	J	0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.0014		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.092		0.0070	0.0019	mg/L		1		200.8	Total/NA
HEM (Oil & Grease)	1.4	J B	5.2	0.56	mg/L		1		1664A	Total/NA
Total Suspended Solids	8.4		1.3	0.63	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
pH	7.70	H	0.100	0.100	SU		1		9040B	Total/NA
Specific Conductance	1500		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

Client Sample ID: SW-11-020615

Lab Sample ID: 720-62889-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Copper	0.0029		0.0020	0.00060	mg/L		1		200.8	Total/NA
Iron	0.23		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.0047		0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.00027	J	0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.21		0.0070	0.0019	mg/L		1		200.8	Total/NA
HEM (Oil & Grease)	0.85	J B	5.3	0.57	mg/L		1		1664A	Total/NA
Total Suspended Solids	10		1.1	0.53	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
pH	7.54	H	0.100	0.100	SU		1		9040B	Total/NA
Specific Conductance	52000		10	10	umhos/cm		10		SM 2510B	Total/NA

Client Sample ID: SW-12-020615

Lab Sample ID: 720-62889-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Aluminum	1.9		0.10	0.10	mg/L		1		200.8	Total/NA
Copper	0.025		0.0020	0.00060	mg/L		1		200.8	Total/NA
Iron	3.6		0.040	0.0058	mg/L		1		200.8	Total/NA
Nickel	0.025		0.0030	0.00040	mg/L		1		200.8	Total/NA
Lead	0.015		0.00040	0.000034	mg/L		1		200.8	Total/NA
Zinc	0.24		0.0070	0.0019	mg/L		1		200.8	Total/NA
HEM (Oil & Grease)	2.7	J B	5.2	0.56	mg/L		1		1664A	Total/NA
Total Suspended Solids	55		4.5	2.3	mg/L		1		SM 2540D	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
pH	7.22	H	0.100	0.100	SU		1		9040B	Total/NA
Specific Conductance	1100		1.0	1.0	umhos/cm		1		SM 2510B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Client Sample ID: TS1-E-020615

Lab Sample ID: 720-62889-1

Date Collected: 02/06/15 13:50

Matrix: Water

Date Received: 02/09/15 18:00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.23		0.10	0.10	mg/L		02/13/15 10:16	02/13/15 14:48	1
Copper	0.0023		0.0020	0.00060	mg/L		02/13/15 10:16	02/13/15 14:48	1
Iron	0.18		0.040	0.0058	mg/L		02/13/15 10:16	02/13/15 14:48	1
Nickel	0.0016	J	0.0030	0.00040	mg/L		02/13/15 10:16	02/13/15 14:48	1
Lead	0.0014		0.00040	0.000034	mg/L		02/13/15 10:16	02/13/15 14:48	1
Zinc	0.092		0.0070	0.0019	mg/L		02/13/15 10:16	02/13/15 14:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	1.4	J B	5.2	0.56	mg/L		02/11/15 20:49	02/11/15 22:01	1
Total Suspended Solids	8.4		1.3	0.63	mg/L			02/12/15 16:03	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.70	H	0.100	0.100	SU			02/09/15 22:42	1
Specific Conductance	1500		1.0	1.0	umhos/cm			02/17/15 15:38	1

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Client Sample ID: SW-11-020615

Lab Sample ID: 720-62889-2

Date Collected: 02/06/15 14:13

Matrix: Water

Date Received: 02/09/15 18:00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.10	mg/L		02/13/15 10:16	02/13/15 15:22	1
Copper	0.0029		0.0020	0.00060	mg/L		02/13/15 10:16	02/13/15 15:22	1
Iron	0.23		0.040	0.0058	mg/L		02/13/15 10:16	02/13/15 15:22	1
Nickel	0.0047		0.0030	0.00040	mg/L		02/13/15 10:16	02/13/15 15:22	1
Lead	0.00027	J	0.00040	0.000034	mg/L		02/13/15 10:16	02/13/15 15:22	1
Zinc	0.21		0.0070	0.0019	mg/L		02/13/15 10:16	02/13/15 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	0.85	J B	5.3	0.57	mg/L		02/11/15 21:01	02/11/15 22:09	1
Total Suspended Solids	10		1.1	0.53	mg/L			02/12/15 16:03	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.54	H	0.100	0.100	SU			02/09/15 22:47	1
Specific Conductance	52000		10	10	umhos/cm			02/17/15 15:38	10

TestAmerica Pleasanton

Client Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Client Sample ID: SW-12-020615

Lab Sample ID: 720-62889-3

Date Collected: 02/06/15 14:05

Matrix: Water

Date Received: 02/09/15 18:00

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.9		0.10	0.10	mg/L		02/13/15 10:16	02/13/15 15:26	1
Copper	0.025		0.0020	0.00060	mg/L		02/13/15 10:16	02/13/15 15:26	1
Iron	3.6		0.040	0.0058	mg/L		02/13/15 10:16	02/13/15 15:26	1
Nickel	0.025		0.0030	0.00040	mg/L		02/13/15 10:16	02/13/15 15:26	1
Lead	0.015		0.00040	0.000034	mg/L		02/13/15 10:16	02/13/15 15:26	1
Zinc	0.24		0.0070	0.0019	mg/L		02/13/15 10:16	02/13/15 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.7	J B	5.2	0.56	mg/L		02/11/15 21:05	02/11/15 22:12	1
Total Suspended Solids	55		4.5	2.3	mg/L			02/12/15 16:03	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.22	H	0.100	0.100	SU			02/09/15 22:50	1
Specific Conductance	1100		1.0	1.0	umhos/cm			02/17/15 15:38	1

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-182457/14-A

Matrix: Water

Analysis Batch: 182582

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 182457

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.10	0.10	mg/L		02/13/15 10:16	02/13/15 14:40	1
Copper	ND		0.0020	0.00060	mg/L		02/13/15 10:16	02/13/15 14:40	1
Iron	ND		0.040	0.0058	mg/L		02/13/15 10:16	02/13/15 14:40	1
Nickel	ND		0.0030	0.00040	mg/L		02/13/15 10:16	02/13/15 14:40	1
Lead	ND		0.00040	0.000034	mg/L		02/13/15 10:16	02/13/15 14:40	1
Zinc	ND		0.0070	0.0019	mg/L		02/13/15 10:16	02/13/15 14:40	1

Lab Sample ID: LCS 580-182457/15-A

Matrix: Water

Analysis Batch: 182582

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	1.00	0.988		mg/L		99	85 - 115
Copper	0.100	0.0981		mg/L		98	85 - 115
Iron	10.0	9.88		mg/L		99	85 - 115
Nickel	0.100	0.0976		mg/L		98	85 - 115
Lead	0.100	0.101		mg/L		101	85 - 115
Zinc	0.100	0.0977		mg/L		98	85 - 115

Lab Sample ID: LCSD 580-182457/16-A

Matrix: Water

Analysis Batch: 182582

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	1.00	0.958		mg/L		96	85 - 115	3	20
Copper	0.100	0.0945		mg/L		94	85 - 115	4	20
Iron	10.0	9.58		mg/L		96	85 - 115	3	20
Nickel	0.100	0.0943		mg/L		94	85 - 115	3	20
Lead	0.100	0.0986		mg/L		99	85 - 115	3	20
Zinc	0.100	0.0936		mg/L		94	85 - 115	4	20

Lab Sample ID: 720-62889-1 MS

Matrix: Water

Analysis Batch: 182582

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	0.23		1.00	1.21		mg/L		98	70 - 130
Copper	0.0023		0.100	0.0994		mg/L		97	70 - 130
Iron	0.18		10.0	9.80		mg/L		96	70 - 130
Nickel	0.0016	J	0.100	0.0985		mg/L		97	70 - 130
Lead	0.0014		0.100	0.0955		mg/L		94	70 - 130
Zinc	0.092		0.100	0.184		mg/L		92	70 - 130

Lab Sample ID: 720-62889-1 MSD

Matrix: Water

Analysis Batch: 182582

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	0.23		1.00	1.18		mg/L		95	70 - 130	2	20

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 720-62889-1 MSD

Matrix: Water

Analysis Batch: 182582

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.0023		0.100	0.0999		mg/L		98	70 - 130	0	20
Iron	0.18		10.0	9.76		mg/L		96	70 - 130	0	20
Nickel	0.0016	J	0.100	0.0995		mg/L		98	70 - 130	1	20
Lead	0.0014		0.100	0.0973		mg/L		96	70 - 130	2	20
Zinc	0.092		0.100	0.187		mg/L		95	70 - 130	2	20

Lab Sample ID: 720-62889-1 DU

Matrix: Water

Analysis Batch: 182582

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 182457

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	0.23		0.218		mg/L		5	20
Copper	0.0023		0.00242		mg/L		4	20
Iron	0.18		0.180		mg/L		2	20
Nickel	0.0016	J	0.00165	J	mg/L		0.7	20
Lead	0.0014		0.00142		mg/L		3	20
Zinc	0.092		0.0934		mg/L		1	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-275537/1-A

Matrix: Water

Analysis Batch: 275542

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 275537

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	0.900	J	5.0	0.54	mg/L		02/11/15 19:30	02/11/15 21:12	1

Lab Sample ID: LCS 500-275537/2-A

Matrix: Water

Analysis Batch: 275542

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 275537

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	34.8		mg/L		87	78 - 114

Lab Sample ID: 720-62889-1 MS

Matrix: Water

Analysis Batch: 275542

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 275537

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	1.4	J B	41.4	37.0		mg/L		86	78 - 114

Lab Sample ID: 720-62889-1 MSD

Matrix: Water

Analysis Batch: 275542

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Prep Batch: 275537

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	1.4	J B	41.5	35.2		mg/L		81	78 - 114	5	18

TestAmerica Pleasanton

QC Sample Results

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Method: 9040B - pH

Lab Sample ID: LCS 720-175496/1

Matrix: Water

Analysis Batch: 175496

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	6.960		SU		99	99 - 101

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-236854/3

Matrix: Water

Analysis Batch: 236854

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			02/17/15 15:38	1

Lab Sample ID: LCS 440-236854/4

Matrix: Water

Analysis Batch: 236854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	765	769		umhos/cm		101	90 - 110

Lab Sample ID: 720-62889-1 DU

Matrix: Water

Analysis Batch: 236854

Client Sample ID: TS1-E-020615

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1500		1510		umhos/cm		0.1	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-236115/2

Matrix: Water

Analysis Batch: 236115

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			02/12/15 16:03	1

Lab Sample ID: LCS 440-236115/1

Matrix: Water

Analysis Batch: 236115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	991		mg/L		99	85 - 115

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Metals

Prep Batch: 182457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	200.8	
720-62889-1 DU	TS1-E-020615	Total/NA	Water	200.8	
720-62889-1 MS	TS1-E-020615	Total/NA	Water	200.8	
720-62889-1 MSD	TS1-E-020615	Total/NA	Water	200.8	
720-62889-2	SW-11-020615	Total/NA	Water	200.8	
720-62889-3	SW-12-020615	Total/NA	Water	200.8	
LCS 580-182457/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-182457/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-182457/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 182582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	200.8	182457
720-62889-1 DU	TS1-E-020615	Total/NA	Water	200.8	182457
720-62889-1 MS	TS1-E-020615	Total/NA	Water	200.8	182457
720-62889-1 MSD	TS1-E-020615	Total/NA	Water	200.8	182457
720-62889-2	SW-11-020615	Total/NA	Water	200.8	182457
720-62889-3	SW-12-020615	Total/NA	Water	200.8	182457
LCS 580-182457/15-A	Lab Control Sample	Total/NA	Water	200.8	182457
LCSD 580-182457/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	182457
MB 580-182457/14-A	Method Blank	Total/NA	Water	200.8	182457

General Chemistry

Analysis Batch: 175496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	9040B	
720-62889-2	SW-11-020615	Total/NA	Water	9040B	
720-62889-3	SW-12-020615	Total/NA	Water	9040B	
LCS 720-175496/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 236115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	SM 2540D	
720-62889-2	SW-11-020615	Total/NA	Water	SM 2540D	
720-62889-3	SW-12-020615	Total/NA	Water	SM 2540D	
LCS 440-236115/1	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-236115/2	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 236854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	SM 2510B	
720-62889-1 DU	TS1-E-020615	Total/NA	Water	SM 2510B	
720-62889-2	SW-11-020615	Total/NA	Water	SM 2510B	
720-62889-3	SW-12-020615	Total/NA	Water	SM 2510B	
LCS 440-236854/4	Lab Control Sample	Total/NA	Water	SM 2510B	
MB 440-236854/3	Method Blank	Total/NA	Water	SM 2510B	

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates

TestAmerica Job ID: 720-62889-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

General Chemistry (Continued)

Prep Batch: 275537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	1664A	
720-62889-1 MS	TS1-E-020615	Total/NA	Water	1664A	
720-62889-1 MSD	TS1-E-020615	Total/NA	Water	1664A	
720-62889-2	SW-11-020615	Total/NA	Water	1664A	
720-62889-3	SW-12-020615	Total/NA	Water	1664A	
LCS 500-275537/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-275537/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 275542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-62889-1	TS1-E-020615	Total/NA	Water	1664A	275537
720-62889-1 MS	TS1-E-020615	Total/NA	Water	1664A	275537
720-62889-1 MSD	TS1-E-020615	Total/NA	Water	1664A	275537
720-62889-2	SW-11-020615	Total/NA	Water	1664A	275537
720-62889-3	SW-12-020615	Total/NA	Water	1664A	275537
LCS 500-275537/2-A	Lab Control Sample	Total/NA	Water	1664A	275537
MB 500-275537/1-A	Method Blank	Total/NA	Water	1664A	275537

Lab Chronicle

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Client Sample ID: TS1-E-020615

Date Collected: 02/06/15 13:50

Date Received: 02/09/15 18:00

Lab Sample ID: 720-62889-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			182457	02/13/15 10:16	PAB	TAL SEA
Total/NA	Analysis	200.8		1	182582	02/13/15 14:48	FCW	TAL SEA
Total/NA	Prep	1664A			275537	02/11/15 20:49	SJS	TAL CHI
Total/NA	Analysis	1664A		1	275542	02/11/15 22:01	SJS	TAL CHI
Total/NA	Analysis	9040B		1	175496	02/09/15 22:42	EYT	TAL PLS
Total/NA	Analysis	SM 2510B		1	236854	02/17/15 15:38	NTN	TAL IRV
Total/NA	Analysis	SM 2540D		1	236115	02/12/15 16:03	NTN	TAL IRV

Client Sample ID: SW-11-020615

Date Collected: 02/06/15 14:13

Date Received: 02/09/15 18:00

Lab Sample ID: 720-62889-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			182457	02/13/15 10:16	PAB	TAL SEA
Total/NA	Analysis	200.8		1	182582	02/13/15 15:22	FCW	TAL SEA
Total/NA	Prep	1664A			275537	02/11/15 21:01	SJS	TAL CHI
Total/NA	Analysis	1664A		1	275542	02/11/15 22:09	SJS	TAL CHI
Total/NA	Analysis	9040B		1	175496	02/09/15 22:47	EYT	TAL PLS
Total/NA	Analysis	SM 2510B		10	236854	02/17/15 15:38	NTN	TAL IRV
Total/NA	Analysis	SM 2540D		1	236115	02/12/15 16:03	NTN	TAL IRV

Client Sample ID: SW-12-020615

Date Collected: 02/06/15 14:05

Date Received: 02/09/15 18:00

Lab Sample ID: 720-62889-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			182457	02/13/15 10:16	PAB	TAL SEA
Total/NA	Analysis	200.8		1	182582	02/13/15 15:26	FCW	TAL SEA
Total/NA	Prep	1664A			275537	02/11/15 21:05	SJS	TAL CHI
Total/NA	Analysis	1664A		1	275542	02/11/15 22:12	SJS	TAL CHI
Total/NA	Analysis	9040B		1	175496	02/09/15 22:50	EYT	TAL PLS
Total/NA	Analysis	SM 2510B		1	236854	02/17/15 15:38	NTN	TAL IRV
Total/NA	Analysis	SM 2540D		1	236115	02/12/15 16:03	NTN	TAL IRV

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

Certification Summary

Client: Weiss Associates
Project/Site: LRT 2014-2015 Annual Stormwater Sampling

TestAmerica Job ID: 720-62889-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16
Analysis Method	Prep Method	Matrix	Analyte	

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-15
California	State Program	9	2903	04-30-15
Georgia	State Program	4	N/A	04-30-15
Georgia	State Program	4	939	04-30-15
Hawaii	State Program	9	N/A	04-30-15
Illinois	NELAP	5	100201	04-30-15
Indiana	State Program	5	C-IL-02	04-30-15
Iowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	03-31-15 *
Kentucky (UST)	State Program	4	66	04-30-15
Kentucky (WW)	State Program	4	KY90023	12-31-15
Massachusetts	State Program	1	M-IL035	06-30-15
Mississippi	State Program	4	N/A	04-30-15
New York	NELAP	2	IL00035	03-31-15
North Carolina (WW/SW)	State Program	4	291	12-31-15
North Dakota	State Program	8	R-194	04-30-15
Oklahoma	State Program	6	8908	08-31-15
South Carolina	State Program	4	77001	04-30-15
USDA	Federal		P330-15-00038	02-11-18
Wisconsin	State Program	5	999580010	08-31-15
Wyoming	State Program	8	8TMS-Q	04-30-15

Laboratory: TestAmerica Irvine

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2706	06-30-16

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15 *
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pleasanton

Method Summary

Client: Weiss Associates

TestAmerica Job ID: 720-62889-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL CHI
9040B	pH	SW846	TAL PLS
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Sample Summary

Client: Weiss Associates

TestAmerica Job ID: 720-62889-1

Project/Site: LRT 2014-2015 Annual Stormwater Sampling

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-62889-1	TS1-E-020615	Water	02/06/15 13:50	02/09/15 18:00
720-62889-2	SW-11-020615	Water	02/06/15 14:13	02/09/15 18:00
720-62889-3	SW-12-020615	Water	02/06/15 14:05	02/09/15 18:00

Chain of Custody Record

720-62889

TestAmerica

1220 Quarry Lane

Pleasanton, CA 94566

Phone: 925-484-1919 ext.137

Please send analytic results, electronic deliverables and the original chain-of-custody form to:

labresults@weiss.com

mec@weiss.com

sah@weiss.com

INSTRUCTIONS FOR LAB PERSONNEL:

GeoTracker EDF required? ☐ Yes ☒ NoEquis 4-file EDWEDD required? ☒ Yes ☐ No

Specify analytic/prep method and detection limit in report.

Notify us of any anomalous peaks in GC or other scans.

Call immediately with any questions or problems.

159238

Client Contact

Project Manager: Scott Bourne

Weiss Associates

2200 Powell Street, Suite 925

Emeryville, CA 94608

(510) 450-6000

(510) 547-5043

Job Name: LRT 2014-2015 Annual Storm Water Sampling

Address: Leont Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804

(Specify Days or Hours)

Project ID: 426-2026.01 Task 1.1.3

Sampled by: ME

Sample date(s): 2/6/15

Analysis Turnaround Time:

Standard

Lab ID

Sample Identification

Sample Date

Sample Time

Sample Matrix

of Cont.

Analyte (Method ID)

pH (EPA 9040B)

Total Suspended Solids (SM 2540D)

Oil & Grease (EPA 1664A SGT-HEM)

Total Metals- Al, Cu, Fe, Ni, Pb, Zn (EPA 200.8 ICP-MS)

WS/MSD for O&G + Metals

TS1-E-020615

SW-3-

SW-4/5/6/7-

SW-4/5/6/7-DUP-

SW-11-020615

SW-12-020615

SHEET-1-

SHEET-2-

☒ = Samples released to a secured, locked area.

● = Samples received from a secured, locked area.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Special Instructions/OC Requirements & Comments: Level II Report Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).

Preservation Used: 1=Ice, 2=HCl, 3=H₂SO₄, 4=HNO₃, 5=NaOH, 6=Other

Field Filtered (X):

1 1 1,2 1,4 1 1 1 1 1 1 1 1



720-62889 Chain of Custody

COC Number:

Page 1 of 1

SDG number:

Sample Specific Notes:

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-62889-1

Login Number: 62889

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-62889-1

Login Number: 62889

List Number: 2

Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago

List Creation: 02/11/15 11:47 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-62889-1

Login Number: 62889

List Number: 4

Creator: Chy, Jonathan

List Source: TestAmerica Irvine

List Creation: 02/12/15 04:36 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Weiss Associates

Job Number: 720-62889-1

Login Number: 62889

List Source: TestAmerica Seattle

List Number: 3

List Creation: 02/11/15 12:08 PM

Creator: Abello, Andrea N

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR#1 = 15.0 / 14.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ELAP#2647

Client:

Scott Bourne

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA94608
Phone:(510) 450-6000
Fax: (510) 547-5043
labresults@weiss.com
mec@weiss.com
sab@weiss.com

Work Order: 4435

Project name:LRT 2014-2015 Annual
Storm Water Sampling

Lab ID#:4435

Sampling date:2/06/15

Sample received date:2/11/15 @ 9:35

Analysis Date: 2/11/15

Reporting Date: 2/18/15

Matrix: Water

Page 1 of 4

Case Narrative

This report presents the results of the analysis of the Water sample received on 2/11/2015 and assigned the listed Cel Analytical work order number 4435 (CeIA 4435).

Analysis were conducted according to StormKlear HaloSource HS-SOP-5054-02 methods validated in-house. All QA/QC requirements were met and no anomalies associated with the analysis of these sample(s) were observed.

Reviewed by:

A handwritten signature in black ink, appearing to read 'Yeggie Z. Dearborn'.

Yeggie Dearborn, Ph.D.
Laboratory Director



cel analytical, inc.

Scott Bourne

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA 94608
Phone: (510) 450-6000
Fax: (510) 547-5043
labresults@weiss.com
mec@weiss.com
sab@weiss.com

Project name: LRT 2014-2015 Annual
Storm Water Sampling

Lab ID#: 4435

Sampling date: 2/06/15

Sample received date: 2/11/15 @ 9:35

Analysis Date: 2/11/15

Reporting Date: 2/18/15

Matrix: Water

Page 2 of 4

Laboratory Report

Qualitative/Colorimetric Analysis

Residual Chitosan

		Results
Lab ID	Sample ID-Description/Date & Time	Residual Chitosan (mg/L)
4435-01	TS1-E-020615 2/6/15 13:50	Non-Detected

Parameter	Laboratory Reporting Limit	Method
Residual Chitosan	0.1mg/L	HS-SOP-5054-02

Reviewed by: Yeggie Dearborn Ph.D.

Lab Director



cel analytical, inc.

Scott Bourne

Weiss Associates
2200 Powell Street, Suite 925
Emeryville, CA94608
Phone:(510) 450-6000
Fax: (510) 547-5043
labresults@weiss.com
mec@weiss.com
sab@weiss.com

Project name:LRT 2014-2015 Annual
Storm Water Sampling

Lab ID#:4435

Sampling date:2/06/15

Sample received date:2/11/15 @ 9:35

Analysis Date: 2/11/15

Reporting Date: 2/18/15

Matrix: Water

Page 3 of 4

Quality Control Report

Residual Chitosan

Method: HS-SOP-5054-02

Reporting Limit: 0.1 mg/L

Quality control analysis

Matrix	Sample Results ppm
Control Sample *	Detected ≥ 0.1 mg/L
Blank	Non-Detected

*Neat Product used as coagulant and diluted to achieve 0.1 mg/L

Reviewed By:Yeggie Dearborn, Ph.D.
Laboratory Director

A handwritten signature in black ink, appearing to read 'Yeggie Z. Dearborn'.

Chain of Custody Record

Please send analytic results, electronic deliverables and the original chain-of-custody form to:
labresults@weiss.com
mec@weiss.com
sab@weiss.com

INSTRUCTIONS FOR LAB PERSONNEL:

GeoTracker EDF required? ☐ Yes ☒ No

Equis 4-file EDVEDD required? ☒ Yes ☐ No

Specify analytic/prep method and detection limit in report.

Notify us of any anomalous peaks in GC or other scans.

Call immediately with any questions or problems.

4435

CEL Analytical 82 Mary Street, Suite #2 San Francisco, CA 94103 Phone: (415) 882-1690		Client Contact Project Manager: Scott Bourne Project ID: 426-2026.01 Task 1.1.3 Sampled by: MEC Sample date(s): 2/6/15 Analysis Turnaround Time: Standard		Protocol ID/path: J-L-levin Richmond/03a, Data Management/00, Field Sampling/00a, Form 1		COC Number:	
Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608 (510) 450-6000 Phone (510) 547-5043 FAX Job Name: LRT 2014-2015 Annual Storm Water Sampling Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804		(Specify Days or Hours)		Analyte (Method ID) Residual Chitosan		Page 1 of 1 SDG number:	
Lab ID	Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	Sample Specific Notes:	
	TS1-E- 020615	2/6/15	1350	W	1		
Field Filtered (X):							
Preservation Used: 1= Ice, 2= HCl, 3= H ₂ SO ₄ , 4= HNO ₃ , 5= NaOH, 6= Other							
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Analyte and report only the metals listed above (Al, Ca, Fe, Ni, Pb, and Zn). Detection unit for residual chitosan (Halo source ligand) is 0.1 mg/L. Sample of nest product (1% liquid) is included for reference.							
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		
	WEISS	2/11/15 0900		CEL A	2-11-15 9:35		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:		

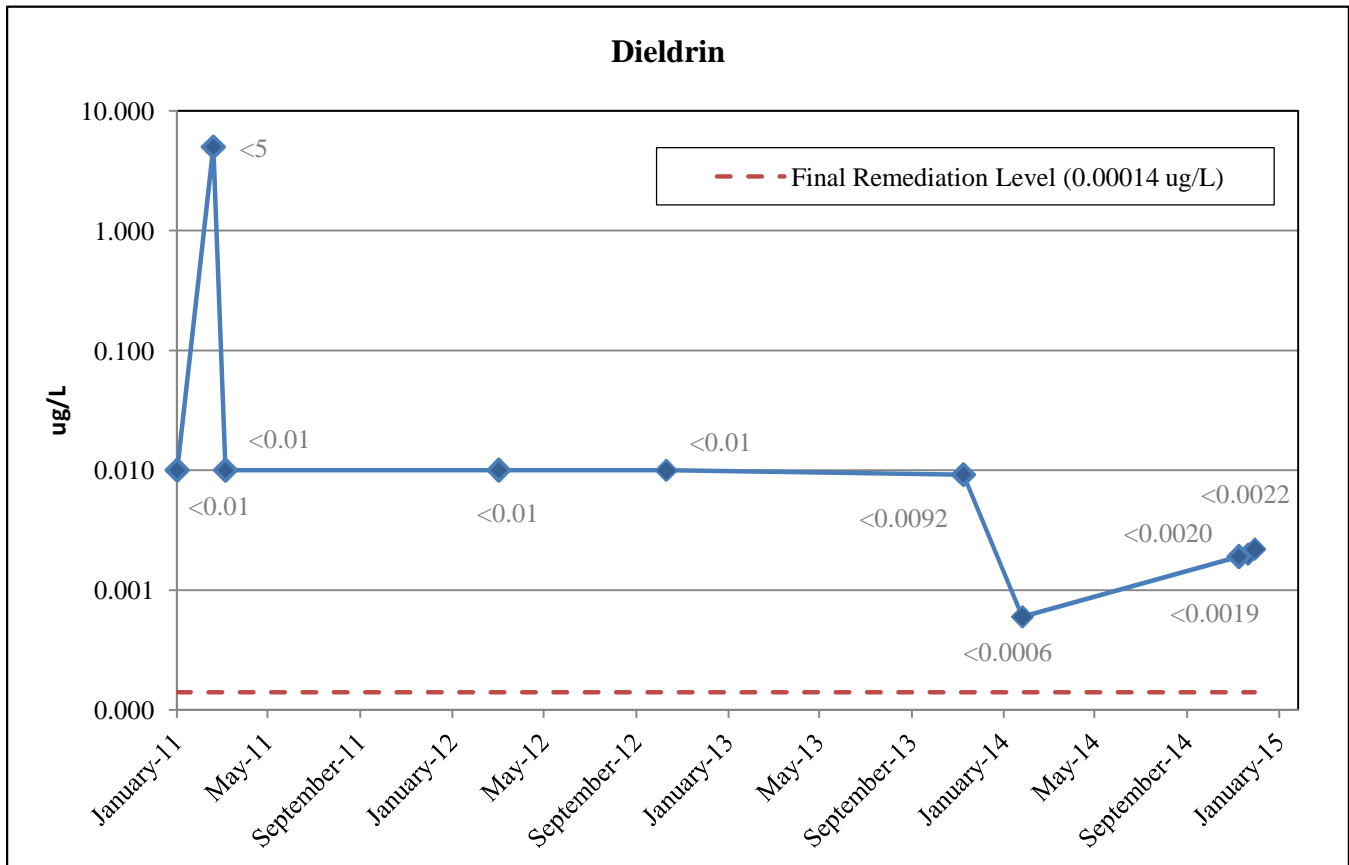
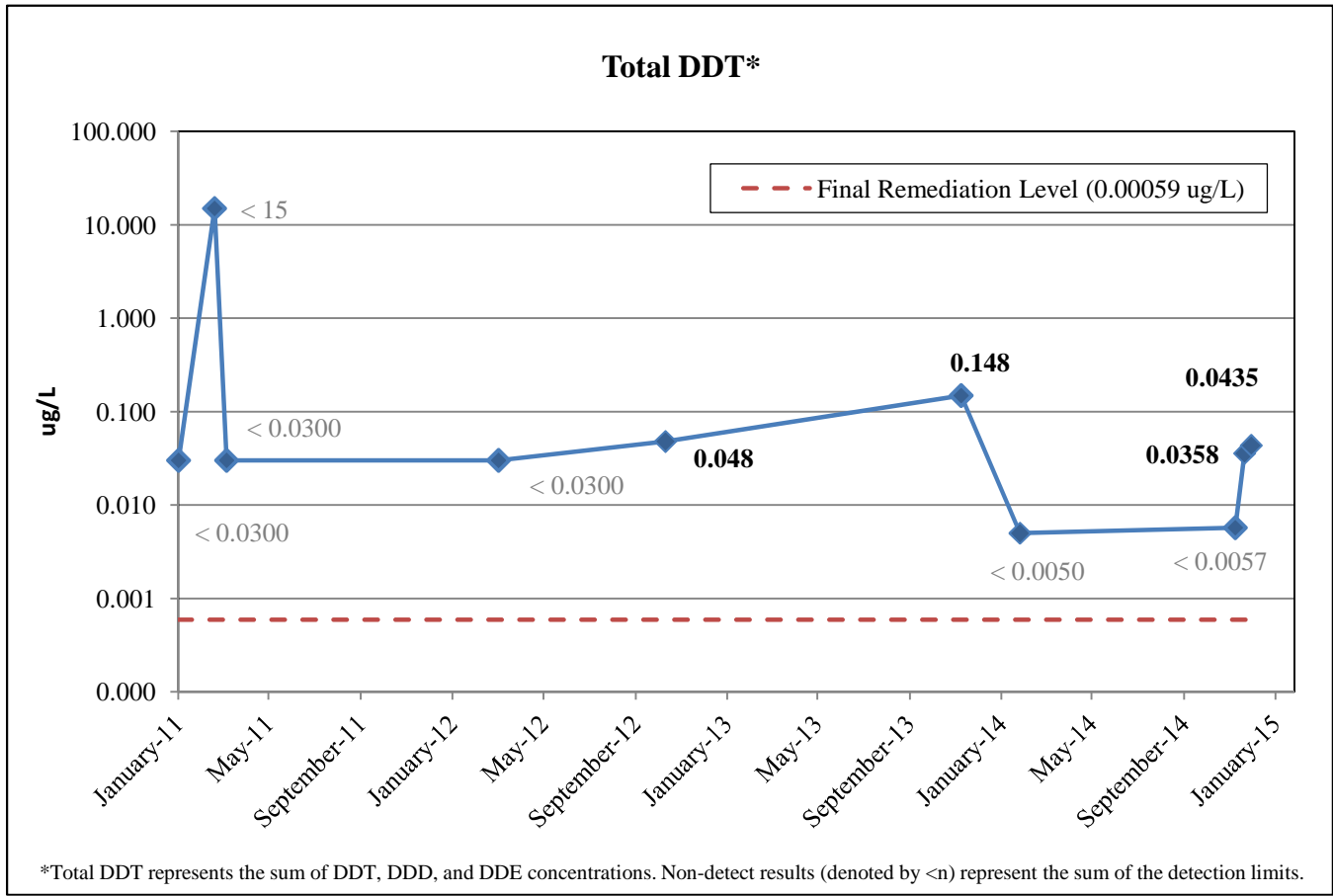
☒ = Samples released to a secured, locked area.

● = Samples received from a secured, locked area

APPENDIX C

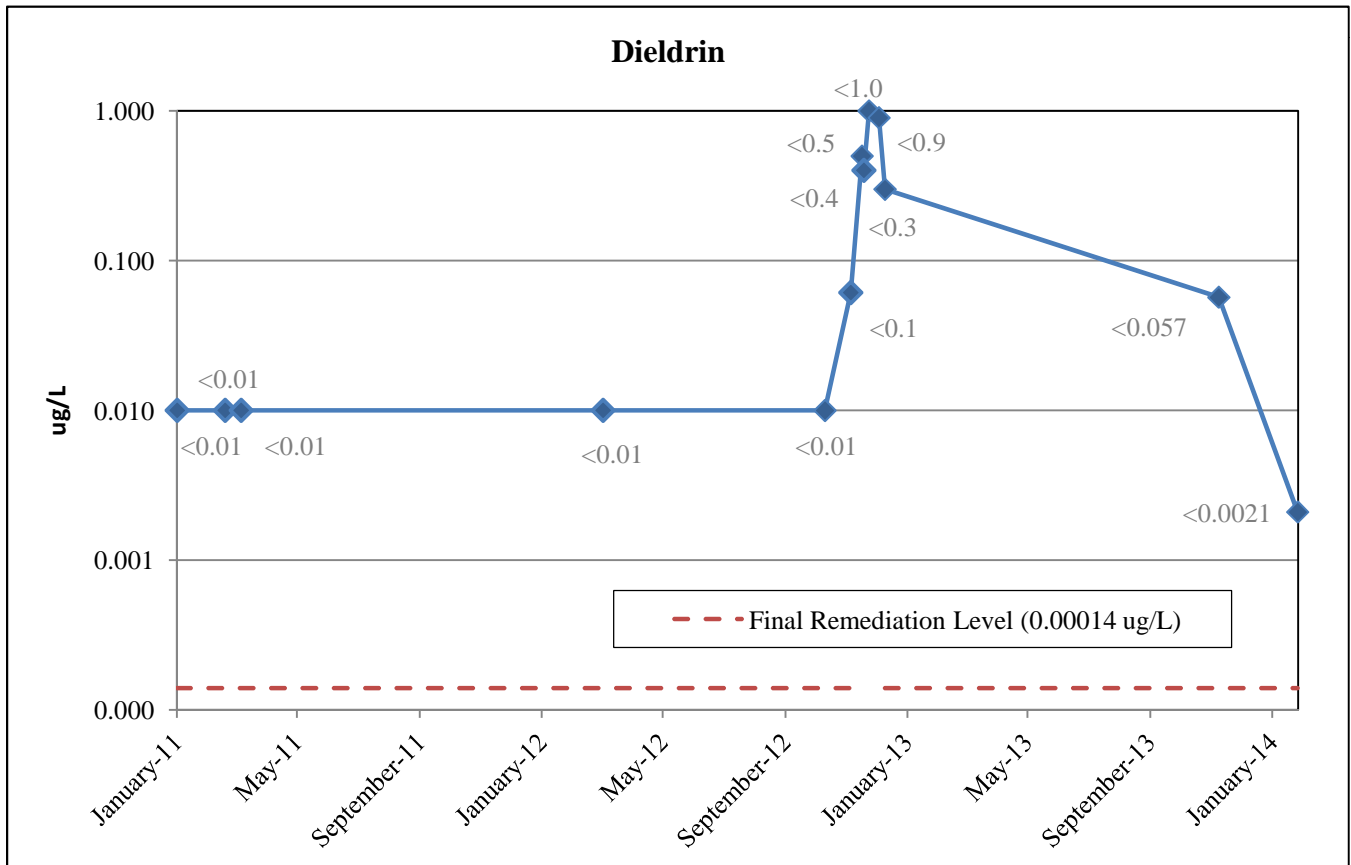
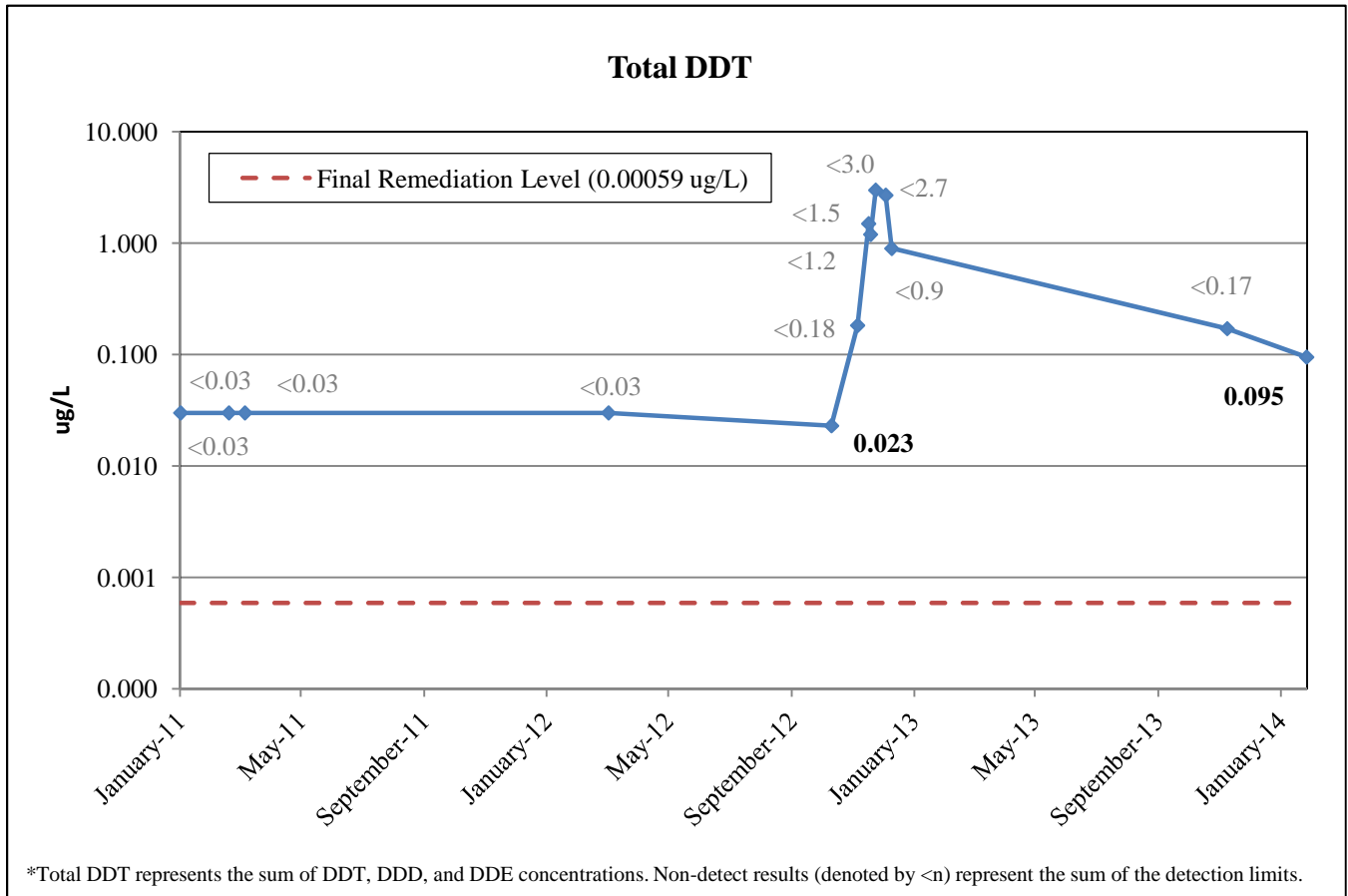
STORM WATER PESTICIDE CONCENTRATION TREND CHARTS FOR DDT AND DIELDRIN

SW-3 Pesticide Concentration Trend Charts 2011-2015



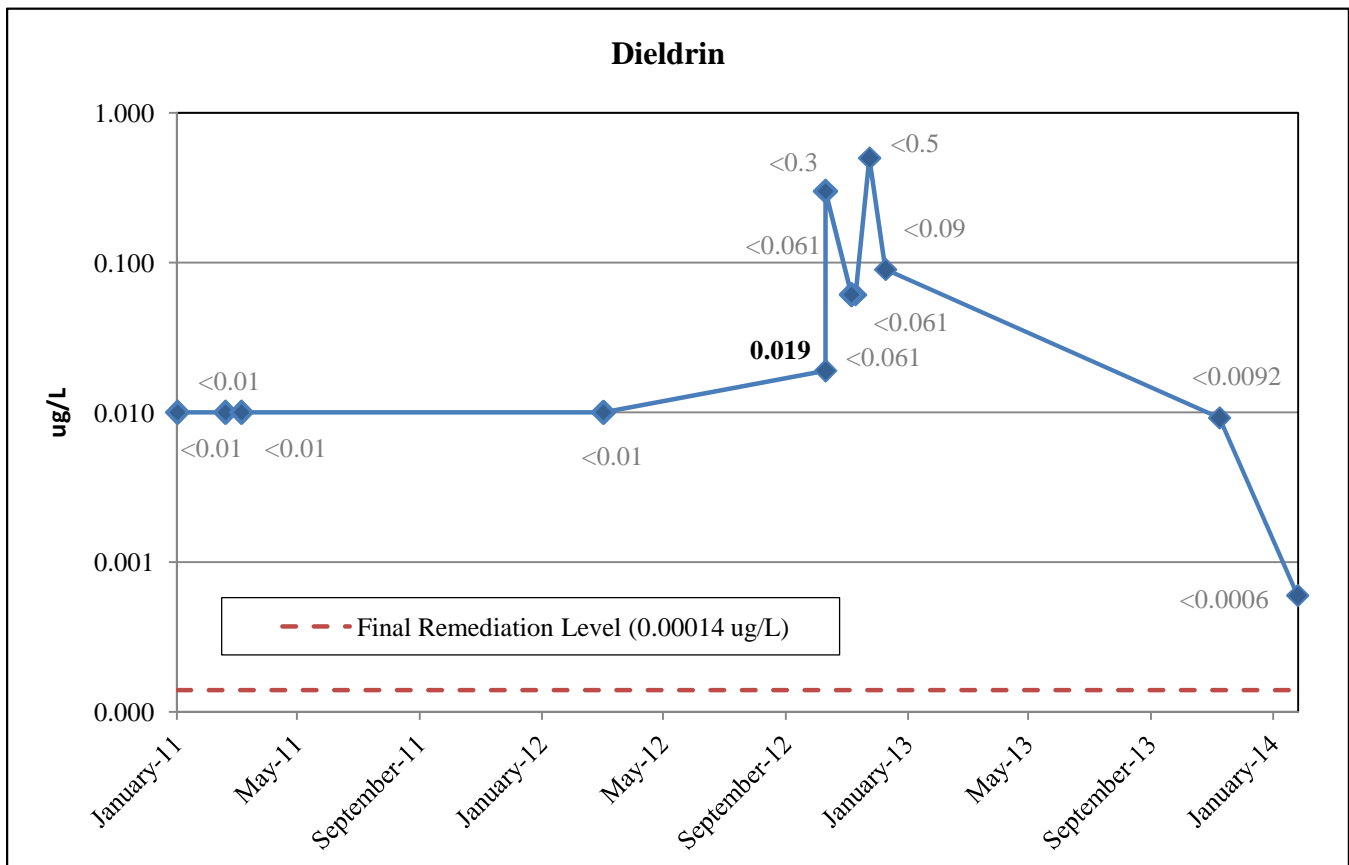
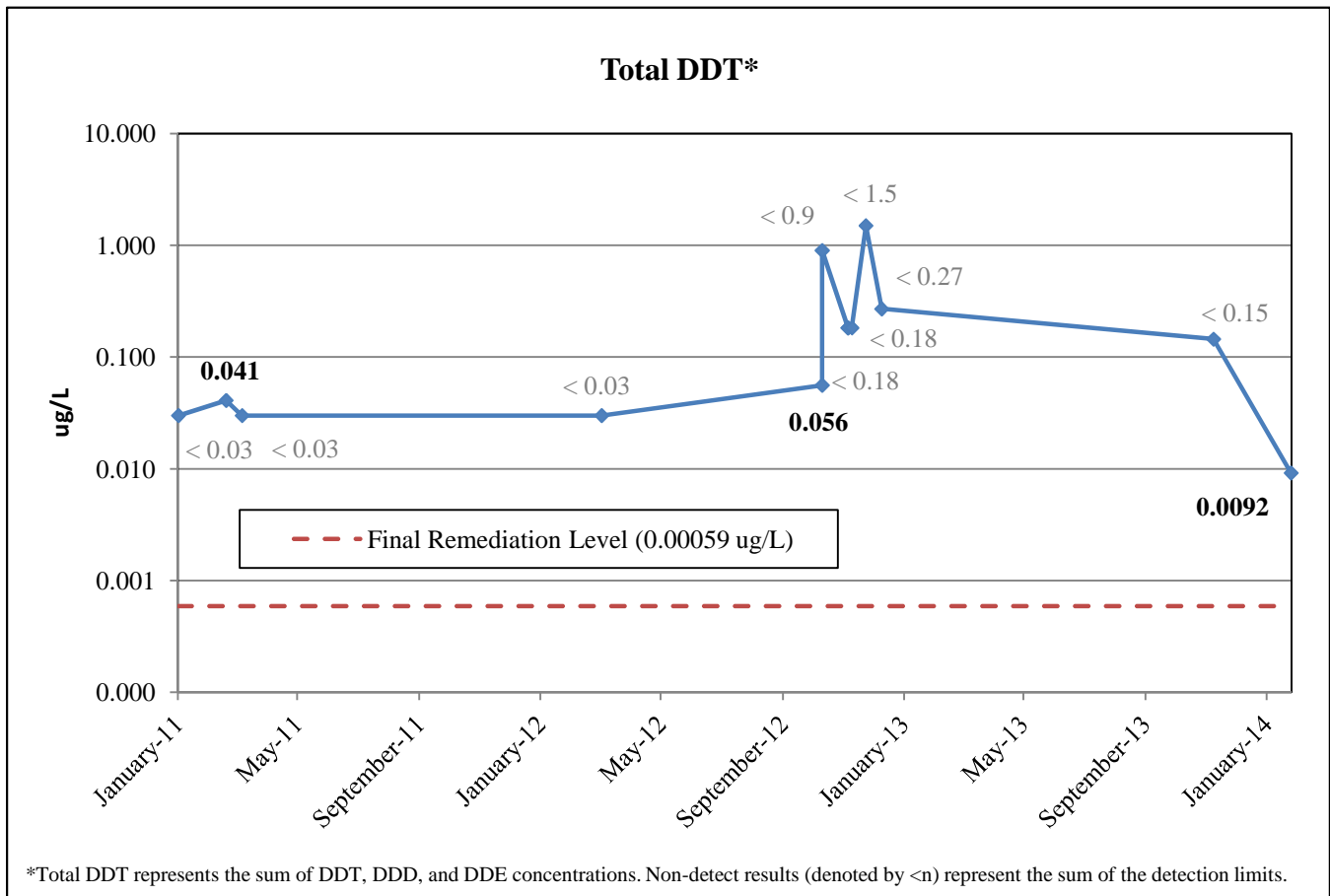
Note:
Data prior to February 2013 represents samples collected by previous consultants.

SW-4 Pesticide Concentration Trend Charts 2011-2014



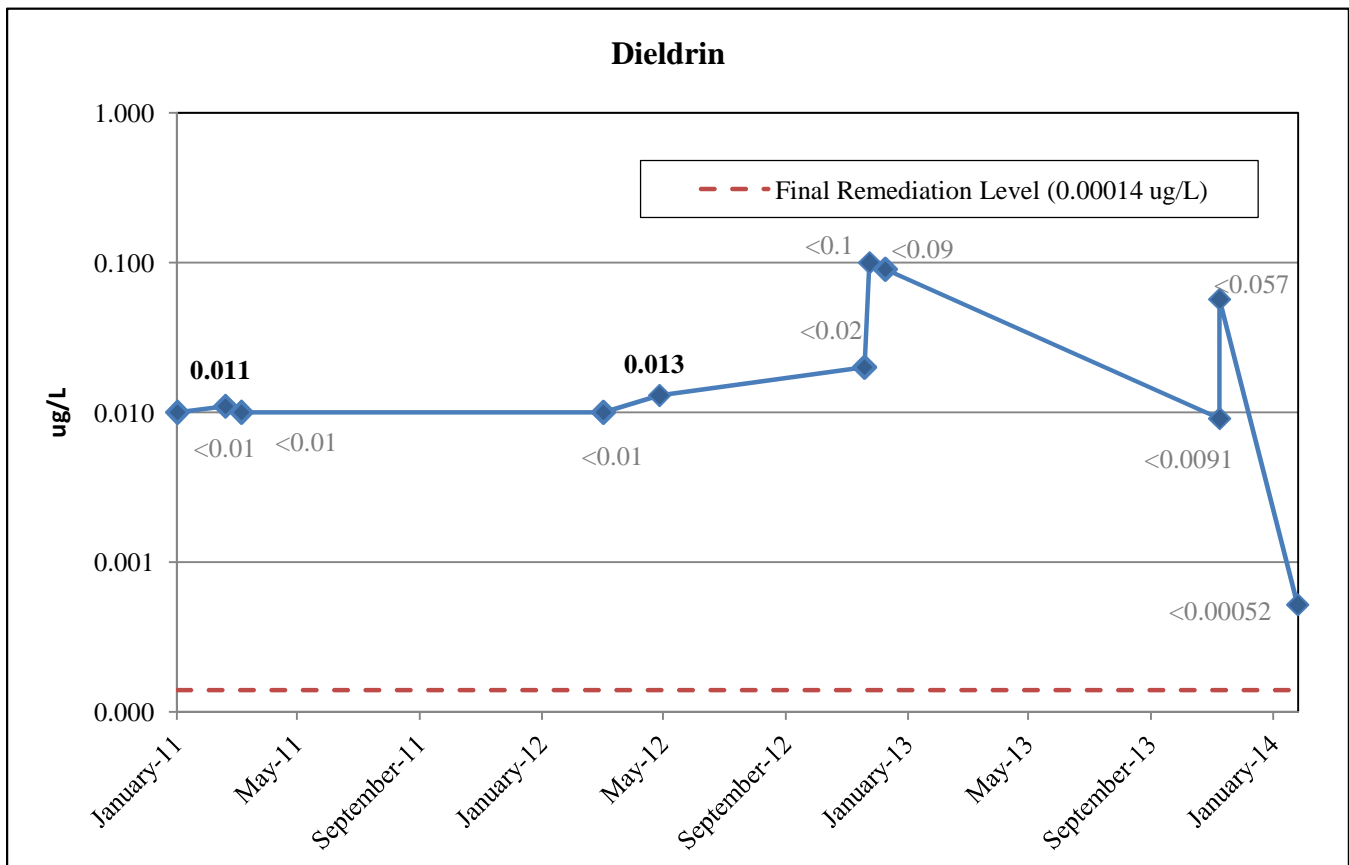
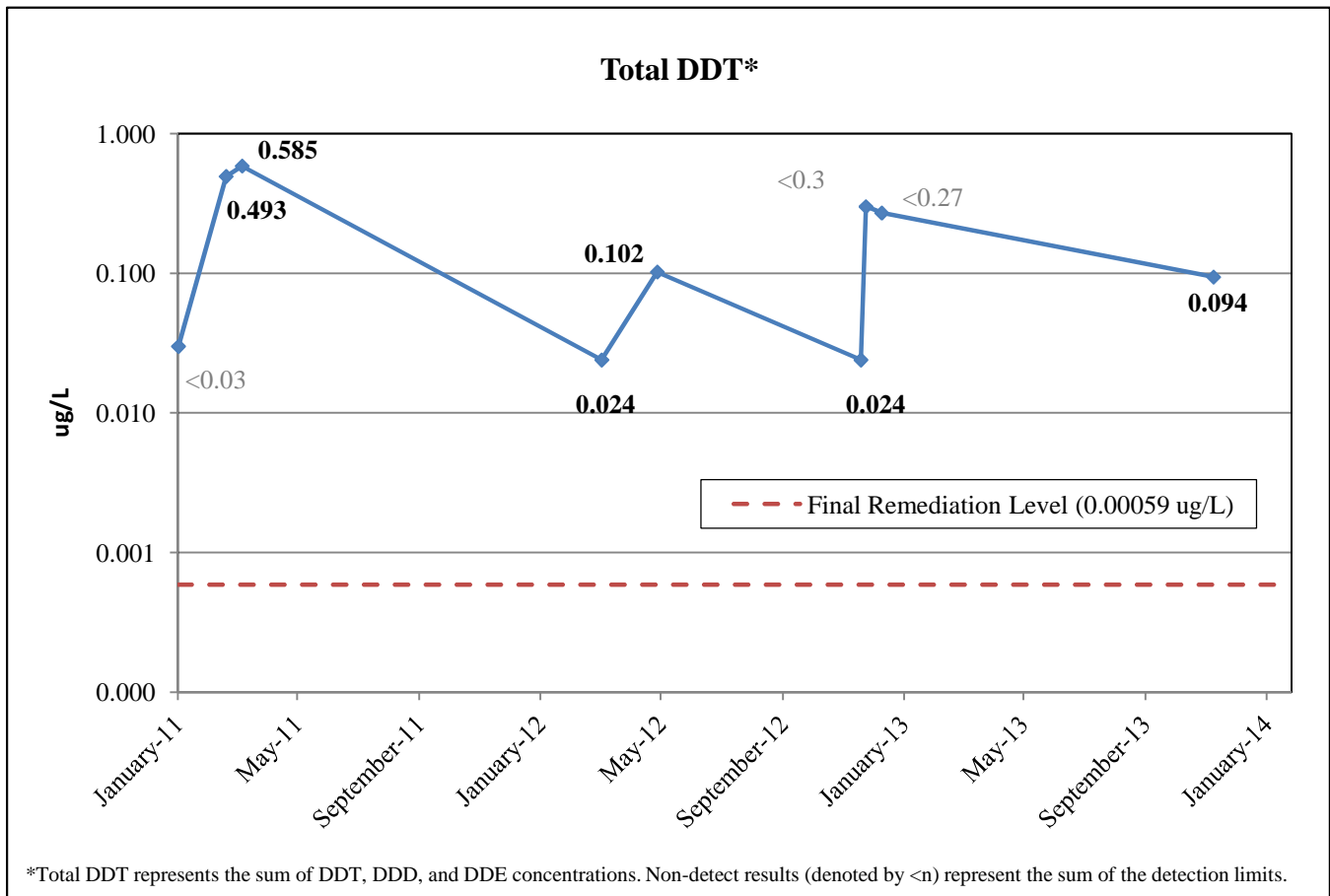
Note:
Data prior to February 2013 represents samples collected by previous consultants.

SW-5 Pesticide Concentration Trend Charts 2011-2014



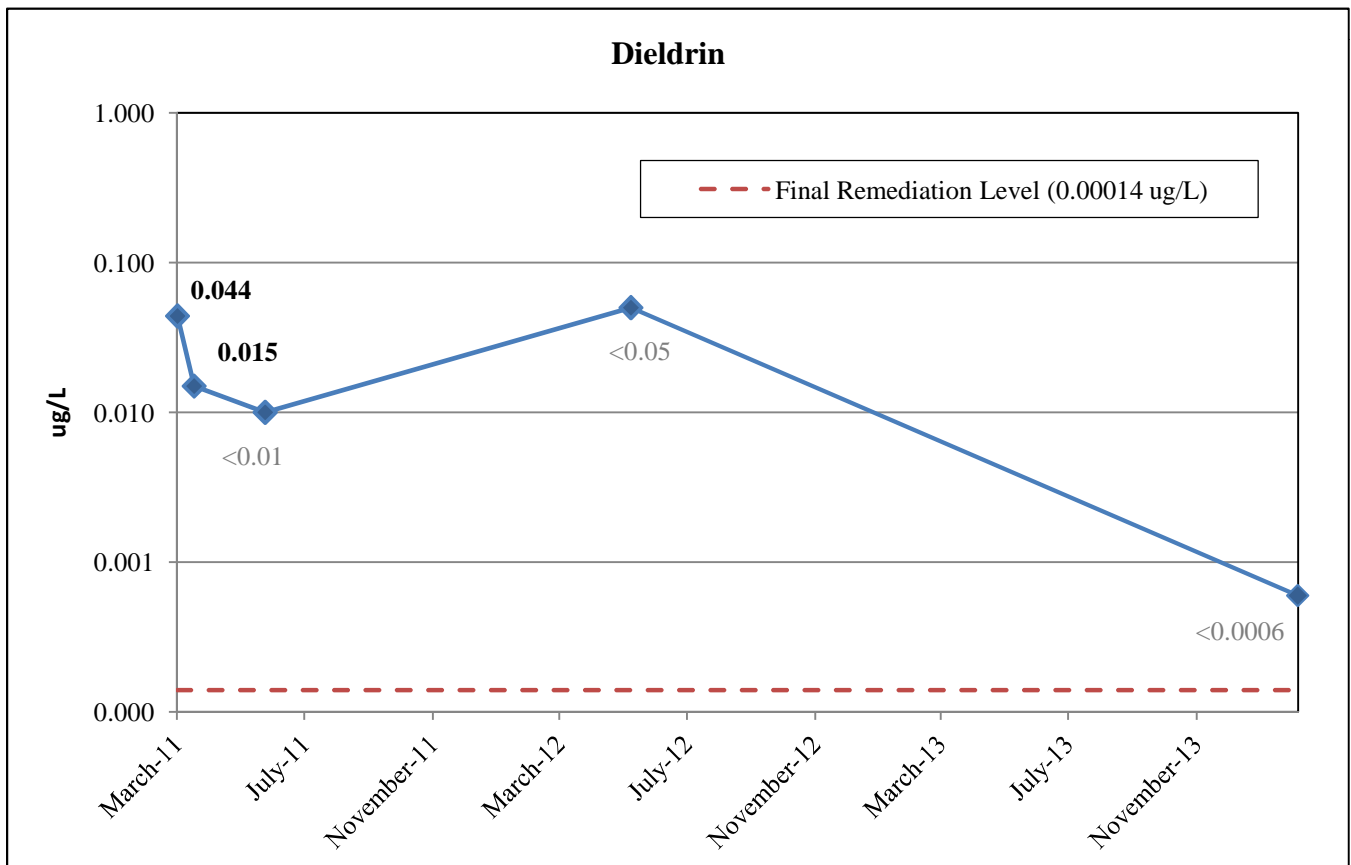
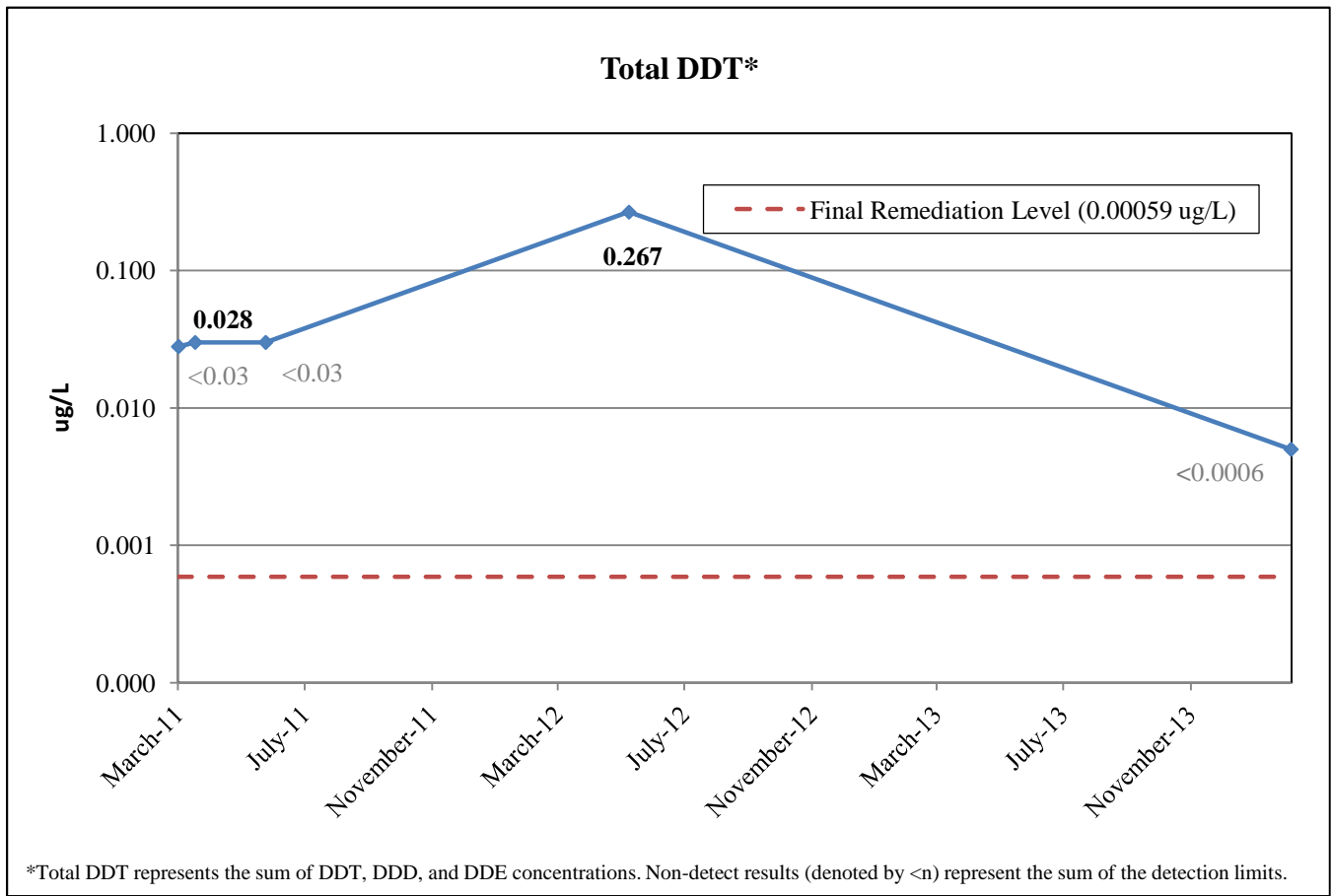
Note:
Data prior to February 2013 represents samples collected by previous consultants.

SW-6 Pesticide Concentration Trend Charts 2011-2014



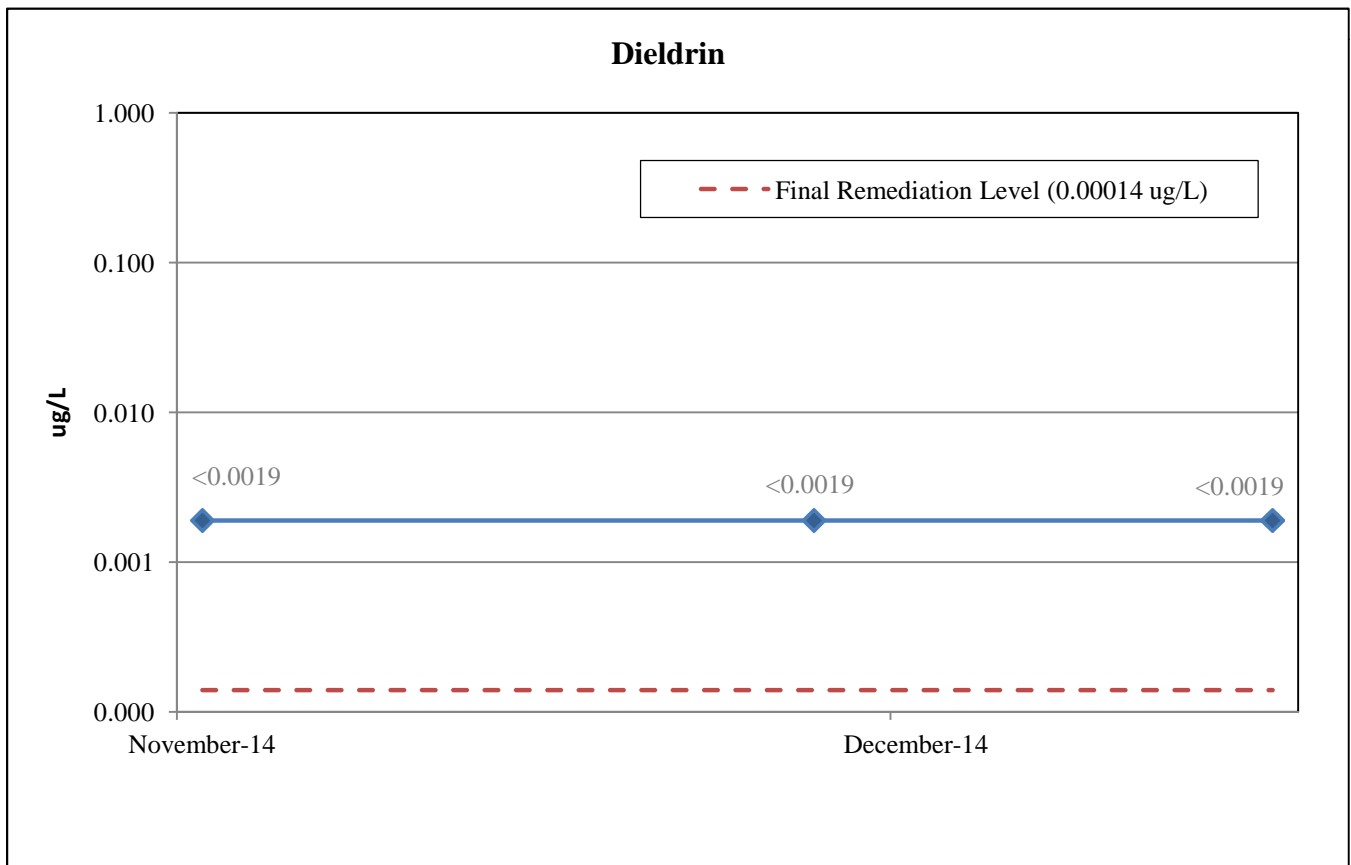
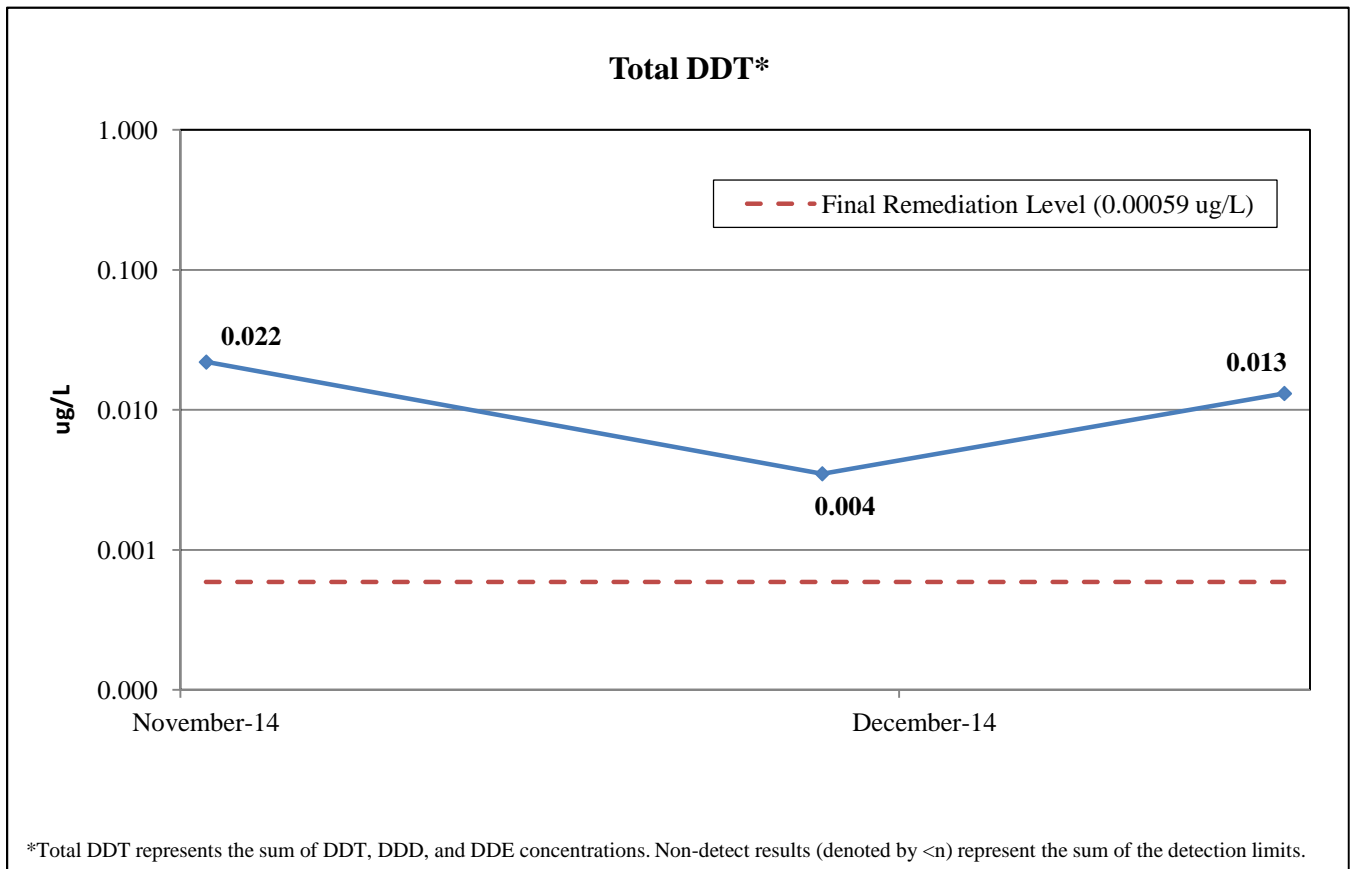
Note:
Data prior to February 2013 represents samples collected by previous consultants.

SW-7 Pesticide Concentration Trend Charts 2011-2014



Note:
Data prior to February 2013 represents samples collected by previous consultants.

SW-4 through SW-7 Pesticide Concentration Trend Charts 2014-2015



Note:
Data prior to February 2013 represents samples collected by previous consultants.

APPENDIX D

UPLAND CAPPING SYSTEM INSPECTION FORM

Former United Heckathorn Superfund Site Upland Capping System Inspection Form
Levin Richmond Terminal, 402 Wright Avenue, Richmond, California

I. General Information

Site: Former United Heckathorn Superfund Site, **Inspectors:** Scott Bourne, PE; Brian Bandy
Levin Richmond Terminal **Organization:** Weiss Associates
Address: 402 Wright Avenue, Richmond, CA **Date and time of inspection:** June 15, 2015; 10:15

II. Upland Area Concrete Cap, Gravel Cover, and Drainage System Observations

Note significant cracks, holes, penetrations, damage, settlement, or any exposure of underlying soil in any component of the capping system.

North Main Terminal (SW-3)

	Yes	No	N/A	Comments
Are concrete cap surfaces in adequate condition to promote effectiveness of the cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minor cracks noted.
Are gravel cover surfaces in adequate condition to promote effectiveness of the cap?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is storm water drainage infrastructure in adequate condition to prevent exposure of underlying soil to runoff?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are corrective actions required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Continued observation recommended. Sealing of pavement cracks and joints noted in some locations.
Attach a photograph of areas requiring corrective action.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Describe any recent repairs/maintenance:

No recent corrective actions to concrete cap or gravel cover noted in SW-3 area.

Describe conditions and locations of the capping system which require attention:

No material breach or areas with significant deterioration and a potential for exposure of the underlying subgrade were identified in this area. See photos 1-5.

Describe corrective actions required and their date(s) of implementation:

Continue to monitor for minor cracks to see if their conditions worsen or if they continue to propagate.

Signature:

Scott Bourne

Date: 6/15/2015

1 of 5

North Main Terminal/United Heckathorn (SW-4)

Yes No N/A Comments

Are concrete cap surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Minor cracks noted.

Are gravel cover surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Additional gravel needed in area identified in photo 6.

Is storm water drainage infrastructure in adequate condition to prevent exposure of underlying soil to runoff?

☒ ☐ ☐

Are corrective actions required?

☒ ☐ ☐

Additional gravel needed in area identified in photo 6.

Attach a photograph of areas requiring corrective action.

☒ ☐ ☐

Photograph 6, Appendix A

Describe any recent repairs/maintenance:

No recent corrective actions to concrete cap or gravel cover noted in SW-4 area.

Describe conditions and locations of the capping system which require attention:

Area of gravel cover in need of additional gravel (photo 6).

Describe corrective actions required and their date(s) of implementation:

Continue to monitor for minor cracks to see if their conditions worsen or if they continue to propagate (photo 8).
Add additional gravel to the gravel cover area identified in photo 6.

Signature:

Scott Bourne

Date: 6/15/2015

2 of 5

North Main Terminal/United Heckathorn (SW-5)

Yes No N/A Comments

Are concrete cap surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Minor cracks noted.

Are gravel cover surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Additional gravel needed in area identified in photo 11.

Is storm water drainage infrastructure in adequate condition to prevent exposure of underlying soil to runoff?

☒ ☐ ☐

Are corrective actions required?

☒ ☐ ☐

Additional gravel needed in area identified in photo 10.

Attach a photograph of areas requiring corrective action.

☒ ☐ ☐

Photograph 10, Appendix A

Describe any recent repairs/maintenance:

Gravel was added in July 2014 in areas of thinning and exposed geotextile in the SW-5 area, as recommended in the 2013-2014 Annual Report.

Describe conditions and locations of the capping system which require attention:

Area of gravel cover in need of additional gravel (photo 10).

Describe corrective actions required and their date(s) of implementation:

Continue to monitor for minor cracks to see if their conditions worsen or if they continue to propagate (photos 9 and 11).
Add additional gravel to the gravel cover area identified in photo 10.

Signature:

Scott Bourne

Date: 6/15/2015

3 of 5

North Main Terminal/United Heckathorn (SW-6)

Yes No N/A Comments

Are concrete cap surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Areas of deteriorated concrete and minor cracks noted.

Are gravel cover surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Is storm water drainage infrastructure in adequate condition to prevent exposure of underlying soil to runoff?

☒ ☐ ☐

Are corrective actions required?

☒ ☐ ☐

Sealing of broken areas in concrete cap recommended.

Attach a photograph of areas requiring corrective action.

☒ ☐ ☐

Photographs 17/18, Appendix A

Describe any recent repairs/maintenance:

No recent corrective actions to concrete cap or gravel cover noted in SW-6 area.

Describe conditions and locations of the capping system which require attention:

Continued monitoring of small areas of deteriorating concrete recommended, especially south of inlet 6-DI-15/north of 5-DI-12.

Describe corrective actions required and their date(s) of implementation:

Continue to monitor for minor cracks to see if their conditions worsen or if they continue to propagate (photos 12, 14, 15, 16). Surface pavement repair and sealing as needed especially south of inlet 6-DI-15.

Signature:

Scott Bourne

Date: 6/15/2015

4 of 5

North Main Terminal/United Heckathorn (SW-7)

Yes No N/A Comments

Are concrete cap surfaces in adequate condition to promote effectiveness of the cap?

☒ ☐ ☐

Minor cracks noted.

Are gravel cover surfaces in adequate condition to promote effectiveness of the cap?

☐ ☐ ☒

Is storm water drainage infrastructure in adequate condition to prevent exposure of underlying soil to runoff?

☒ ☐ ☐

Are corrective actions required?

☐ ☒ ☐

Attach a photograph of areas requiring corrective action.

☐ ☐ ☒

Describe any recent repairs/maintenance:

No recent corrective actions to concrete cap or gravel cover noted in SW-7 area.

Describe conditions and locations of the capping system which require attention:

Minor cracks observed in the SW-7 concrete cap knoll (photos 13 and 14).

Describe corrective actions required and their date(s) of implementation:

No corrective actions required; however, continue to monitor cracks noted in this inspection for further propagation and settlement.

Signature:

Scott Bourne

Date: 6/15/2015

5 of 5